



May 2009

**Section 27
Environmental Protection Act
R.S.O. 1990**

Sample Application Package for a
Certificate of Approval for a Waste Disposal Site
(Composting Facility)

PIBS 6838e

Protecting our environment.



FOREWORD

This document has been produced by the Environmental Assessment and Approvals Branch as an example of a complete application submission for a Certificate of Approval for a waste disposal site (processing). While every effort has been made to ensure the accuracy of the information contained in this document, it should not be construed as legal advice.

The following forms have been used in this sample application package:

- [Application for a Provisional Certificate of Approval for a Waste Disposal Site](#)
- [Costs for EPA s. 27 Applications, Supplement to Application for Approval.](#)

Instructions for completing these forms and additional information about Air & Noise Certificate of Approval is available in the following publications:

- [Green Facts: Certificates of Approval – Waste Disposal and Management](#)
- [Guide to Applying for Approval of Waste Disposal Sites](#)
- [Guide – Application Costs for Waste Management, EPA s. 27](#)
- [Interim Guidelines for the Production and Use of Aerobic Compost in Ontario](#)

For more information about Certificates of Approval or to obtain an application package, please visit the Ministry of the Environment Internet site at <http://www.ene.gov.on.ca> or contact:

Ministry of the Environment
Environmental Assessment and Approvals Branch
2 St. Clair Ave. W, Floor 12A
Toronto, ON M4V 1L5

Toll Free: 1-800-461-6290
Phone: 416-314-8001
Fax: 416-314-8452
Email: EAABGen@ene.gov.on.ca

**APPLICATION FOR CERTIFICATE OF APPROVAL FOR A WASTE
DISPOSAL SITE (PROCESSING)**

**ACME Othertown Composting Facility
Othertown, Ontario**

DECEMBER 2008

**Prepared by:
ACME Waste Inc.**



ACME Waste Inc.
123 Anywhere Street
Anytown, Ontario
N9N 1A1

November 14, 2008

Ontario Ministry of the Environment
Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

ATTN: Director

**RE: Application for a Certificate of Approval for a Waste Disposal Site (Processing)
ACME Othertown Composting Facility**

ACME Waste Inc. is pleased to submit an application as required by Section 27 of the *Environmental Protection Act* for the construction and operation of a new composting facility to manage source separated organic waste (food waste and non-recyclable tissue), and leaf and yard waste.

The ACME Othertown Composting Facility will be located on a 27.6 hectare property that is currently owned by ACME Waste Inc., at 5555 Country Lane, Othertown, Ontario. The facility will provide support for the Somewhere County Integrated Source Separated Organics Program scheduled to be launched in August 2009, in addition to providing composting capacity to local industrial, commercial and institutional establishments.

Please find attached two copies of the Application for a Provisional Certificate of Approval for a Waste Disposal Site (Processing) package, complete with the following documentation:

- Attachment 1 Reference Plan
- Attachment 2 Proof of Legal Name;
- Attachment 3 Design and Operations Report;
- Attachment 4 Record of Public and Government Agency Consultation; and
- Attachment 5 Financial Assurance Calculation.

In addition to the Section 27 application, separate applications are is being submitted under Section 9 of the *Environmental Protection Act* for Approval (Air & Noise), including the Odour Impact Assessment Report for the proposed undertaking, and under Section 53 of the *Ontario Water Resources Act* for Approval of Industrial Sewage Works.

If you have any questions regarding this application, please do not hesitate to contact me.

Sincerely,

Eman Anonymous
Project Manager

cc: Othertown District Office, Ministry of the Environment
cc: Municipality of Othertown

General Information and Instructions

General:

Information requested in this form is collected under the authority of the *Environmental Protection Act*, R.S.O. 1990 (EPA) and the *Environmental Bill of Rights*, C. 28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for approval of waste disposal sites under Section 27, EPA. Questions about this collection of information should be directed to: Information Unit Supervisor, Environmental Assessment and Approvals Branch, 2 St. Clair Ave. W, Floor 12A, Toronto ON M4V 1L5. Telephone outside Toronto 1-800-461-6290 or in Toronto 416-314-8001.

Instructions:

1. **Applicants are responsible for ensuring that they complete the most recent application form.** When completing this form, please refer to the following guidance material: the "Guide for Applying for Certificate of Approval of Waste Disposal Sites, Section 27, 30, 31 and 32, EPA," (referred to as the Guide) and "Guide - Application Cost for Waste Management, S. 27, EPA". Application forms and supporting documentation are available from the Environmental Assessment and Approvals Branch toll free at 1-800-461-6290 (locally at 416-314-8001), from your local District Office of the Ministry of the Environment, and in the "Publications" section of the Ministry of the Environment website at <http://www.ene.gov.on.ca/envision/gp/index.htm#disposal>.
2. Questions regarding completion and submission of this application should be directed to the Environmental Assessment and Approvals Branch, 2 St. Clair Avenue West, Floor 12A, Toronto, Ontario, M4V 1L5, telephone number 1-800-461-6290 or (416) 314-8001, or to your local District Office of the Ministry of the Environment.
3. A complete application consists of:
 - 1) a completed and signed application form;
 - 2) all required supporting information identified in this form, the guidance material, and
 - 3) a certified cheque, money order or credit card payment, in Canadian funds, made payable to the *Ontario Minister of Finance* for the applicable application fee.

This form must be completed with respect to all requirements identified in the guidance material in order for it to be considered an application for approval.

INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT. The Ministry may require additional information during the technical review of any application initially accepted as complete.

4. The original application, along with the supporting information and the application fee, must be sent to:

**The Ministry of the Environment,
Director, Environmental Assessment and Approvals Branch, Section 27
2 St. Clair Avenue West, Floor 12A, Toronto, Ontario, M4V 1L5**

A copy of the application and the supporting information must be sent to the local Ministry District Office which has jurisdiction over the area where the facilities are located. To locate the appropriate local Ministry District Office, please visit the Ministry of the Environment Internet site at: www.ene.gov.on.ca/envision/org/op.htm#Reg/Dist.

A copy of the application and the supporting information must also be sent to the local municipality (unless the application is for a revocation or an amendment that is environmentally insignificant or the applicant is a municipality). Copies shall be provided to both the upper and lower tier municipality if applicable to the area where this facility is located.

A cover letter addressed to the Director of Environmental Assessment and Approvals Branch should accompany both submissions and indicate that a copy of the complete submission has been sent to the local District Office and local municipality(s).

5. Information contained in this application is not considered confidential and will be made available to the public upon request. Information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPPA) and EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry may make the information available to the public without further notice to you.
6. The electronic version of this form incorporates several features to assist you with completing your application. The form will calculate certain values based on the information you enter and will assist you in ensuring that all required information is included with your application. This form has been save-enabled; you can save a copy of this form that includes any information you have entered. You are encouraged to use the electronic version of this form, available on the Ministry of the Environment website at: <http://www.ene.gov.on.ca/envision/gp/4181e.pdf>.

Application for a Provisional Certificate of Approval for a Waste Disposal Site

Ce formulaire est disponible en français

For Office Use Only			
Reference Number	Payment Received \$	Date (y/m/d)	Initials

Application Summary

Applicant Name (legal name of individual or organization as evidenced by legal documents)

ACME Waste Inc.

Project Name (Project identifier to be used as a reference in correspondence)

ACME Othertown Composting Facility

Project Description Summary (If EBR is applicable, this summary will be used in the EBR posting notice)

This application is for a Certificate of Approval for the following:

The use and operation of a 13.8 hectare Waste Disposal Site (processing), within a total area of 27.6 hectares, to be used for the construction and operation of a composting facility to manage source separated organic waste (food waste and non-recyclable tissue), and leaf and yard waste. The composting facility will be located on a property that is currently owned by ACME Waste Inc., at 5555 Country Lane, Othertown, Ontario. Source separated organic waste will be composted within a 2,060 m² building equipped with pollution control equipment. Leaf and yard waste and compost curing will take place outdoors. The service area for the composting facility includes the residential and industrial, commercial, and institutional sectors of the municipalities of Somewhere County. The composting facility has a proposed maximum daily receiving rate of 200 tonnes per day and a maximum storage limit of 17,600 tonnes at any one time. Operating hours are Monday to Friday 6:00 am to 7:00 pm, Saturday 6:00 am to 2:00 pm, 312 operating days per year.

Required Information	Completed (yes or no)
Project Name & Description	Yes
Section 1: Applicant Information	Yes
Section 2: Project Information	Yes
Section 3: Site Information	Yes
Section 4: Facility Information	Yes
Section 5: Regulatory Requirements	Yes
Section 6: Supporting Information	Yes
Payment Information Section	Yes
Application Status: FORM COMPLETE. Print Completed Form	

Cost Summary:

Administrative processing (required for most applications)	\$ 200.00
Hearing (if mandatory or necessary)	\$ 0.00

Review of Application	\$ 4,800.00
TOTAL COST	\$ 5,000.00

Section 1: Applicant Information

1.1 Applicant Information (Owner of works/facility)

Applicant Name (legal name of individual or organization as evidenced by legal documents) ACME Waste Inc.		Business Identification Number 123456789
Business Name (the name under which the entity is operating or trading - also referred to as trade name) ACME Waste Inc.		<input checked="" type="checkbox"/> same as Applicant Name
Applicant Type: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietor		North American Industry Classification System (NAICS) Code 562210 Waste Treatment and Disposal
<input type="checkbox"/> Federal Government <input type="checkbox"/> Municipal Government <input type="checkbox"/> Provincial Government <input type="checkbox"/> Other (describe):		
Business Activity Description (a description of the business endeavour, this may include products sold, services provided or machinery/equipment used, etc.) Non hazardous waste treatment and disposal.		

1.2 Applicant Physical Address

Civic Address- Street information (includes street number, name, type and direction) 123 Anywhere Street				Unit Identifier (i.e. apartment number)	
Survey Address (Not required if Street Information is provided)	Lot	Conc.	Part	Reference Plan	
Municipality /Unorganized Township Anytown	County/District Prosperous county	Province/State Ontario	Country Canada	Postal Code A1B 2C3	
Telephone Number (include area code & ext.) (905)555-1234 ext.	Fax Number (include area code) (905)555-1235	Mobile Number (include area code) (905)555-1236	E-mail Address acmewaste@ACME.com		
Geo Reference (southwest corner of property)					
Map Datum NAD83	Zone 17	Accuracy Estimate +/- 10m	Geo Referencing Method GPS	UTM Easting 999999999	UTM Northing 999999999

1.3 Applicant Mailing Address

Same as Applicant Physical Address? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, please provide site address information below)					
Civic Address - Street information (civic numbering and street information including street number, name, type and direction) 123 Anywhere Street				Unit Identifier (i.e. apartment number)	
Delivery Designator	Delivery Identifier	Postal Station			
Anytown	Province/State Ontario	Country Canada	Postal Code A1B 2C3		

1.4 Statement of Applicant

I, the undersigned hereby declare that, to the best of my knowledge: <ul style="list-style-type: none">The information contained herein and the information submitted in support of this application is complete and accurate in every way and I am aware of the penalties against providing false information as per s. 184(2) of the <i>Environmental Protection Act</i>.The Project Technical Information Contact identified in this form is authorized to act on my behalf for the purpose of obtaining approval under Section 27 of the EPA for the waste disposal site identified herein.I have used the most recent application form, as obtained from the Ministry of the Environment Internet site at http://www.ene.gov.on.ca/en/publications/forms/index.php#PartWaste or the Environmental Assessment and Approvals Branch at 1-800-461-6290.		
Name of Signing Authority (please print) Tony Bigshot		Title Owner, ACME Waste Inc.
Telephone Number (including area code & extension) (905)555-1234 ext. 1	Fax Number (including area code) (905)555-1235	E-mail Address TonyB@ACME.com
Mobile Number (including area code) (902)555-1236	Signature	Date (y/m/d)

Section 2: Project Information

2.1 Application Type

Type of Application:

- | | |
|--|---|
| <input checked="" type="checkbox"/> New Certificate of Approval | <input type="checkbox"/> New Comprehensive Certificate of Approval |
| <input type="checkbox"/> Amendment to Current Certificate of Approval | <input type="checkbox"/> Convert Existing Approval to Comprehensive Certificate of Approval |
| <input type="checkbox"/> Administrative Amendment to Current Certificate of Approval | <input type="checkbox"/> Revocation |
| <input type="checkbox"/> Compliance with Conditions of the Existing Approval | |

Is this a submission for Preliminary Review of your application?

- ☐ Yes ☒ No *If yes, the application must be complete and finalized before you submit it for Preliminary Review.*

Application Initiated by:

- ☒ Proponent ☐ Environmental Assessment and Approvals Branch ☐ Provincial Officer Order (attach copy) ☐ Other (specify):

Current Certificate of Approval

Certificate of Approval Number

Certificate of Approval Date of Issue (yyyy/mm/dd)

Project Schedule

Estimated date for start of construction/installation (yyyy/mm/dd)

2009/05/30

Estimated date for start of operation (yyyy/mm/dd)

2009/09/30

Comprehensive Certificate of Approval – Eligibility Screening Questionnaire

Screening Result: You are not required to complete the screening questionnaire

2.2 Project Technical Information Contact

Name of Project Technical Information Contact Eman Anonymous		Company ACME Waste Inc.	
Telephone Number (include area code & ext.) (905)555-1234 ext. 555	Fax Number (include area code) (905)555-1235	Mobile Number (include area code) (905)555-1237	E-mail Address EAnonymous@ACME.com
Address Information:			
Same as Applicant Mailing Address? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, please provide technical information contact address information below)			
Civic Address - Street information (civic numbering and street information including street number, name, type and direction) 123 Anywhere Street			Unit Identifier (i.e. apartment number)
Delivery Designator	Delivery Identifier	Postal Station	
Municipality /Unorganized Township Anytown	Province/State Ontario	Country Canada	Postal Code A1B 2C3

Section 3: Site Information

3.1 Site Address - (location where activity/works applied for is to take place)

Same as Applicant Physical Address? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If no, please provide site address information below)					
Civic Address- Street information (includes street number, name, type and direction) 5555 County Lane					Unit Identifier (i.e. apartment number)
Survey Address (Legal description of the site)	Lot 15	Conc. 3	Part SE	Reference Plan 12R	
Municipality /Unorganized Township Othertown	County/District Somewhere county			Postal Code B2C 3D4	
Non Address Information (includes any additional information to clarify applicants' physical location)					
Geo Reference (southwest corner of property)					
Map Datum NAD83	Zone 17	Accuracy Estimate 10 - 20 m	Geo Referencing Method Topo Map	UTM Easting 9999999	UTM Northing 9999999

3.2 Site Information - (location where activity/works applied for is to take place)

Site Name ACME Composting Facility	MOE District Office Othertown District Office
Is the site (property) that is the subject of this application owned by the Applicant? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If no, please attach the owner's name, address and a signed letter granting consent for the installation and operation of the facilities</i>	
Is the Applicant the operating authority of the site that is the subject of this application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If no, please attach the operating authority name, address and phone number</i>	
Is the Site located in an area of development control as defined by the Niagara Escarpment Planning & Development Act (NEPDA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, please attach a copy of the NEPDA permit for proposed activity/work</i>	
Is the Site located on the Oak Ridges Moraine Conservation Area as defined by the Oak Ridges Moraine Conservation Plan (ORMCP), a regulation made under the Oak Ridges Moraine Conservation Act (ORMCA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, please attach proof of Municipal planning approval for the proposed activity/work</i>	

3.3 Site Zoning and Classification

Present Land Use Vacant Undeveloped	Present Official Plan Designation Mixed Use Agricultural / Industria	Present Zoning Category Disposal Industrial
Adjacent Land Use (select all that apply) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Agricultural <input type="checkbox"/> Recreational <input type="checkbox"/> Other(specify):		
Does the site currently have proper zoning for the proposed facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Has this facility been identified as part of the Official Plan? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has the Applicant received municipal zoning confirmation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, please attach correspondence from the municipality</i>		

Section 4: Facility Information

4.1 Facility Description (information on the nature of the proposed business or activity at this site)

Type of Facility / Operation (select all that apply & complete all appropriate sections)							
<input type="checkbox"/> Landfill	<input type="checkbox"/> Transfer	<input type="checkbox"/> Processing	<input type="checkbox"/> Thermal Treatment Facility	<input type="checkbox"/> Household Hazardous Waste			
<input type="checkbox"/> Closed / Decommissioned	<input checked="" type="checkbox"/> Composting						
Days and Hours of Operation M-F 0600-1900 and Sat. 0600-1400		Population Served by this Site (#) 130,000		Service Area Somewhere County		Total Area of Site (hectares) 27.60	
Monitoring (select all that apply)							
<input type="checkbox"/> Groundwater	<input type="checkbox"/> Surface Water	<input type="checkbox"/> Landfill Gas	<input type="checkbox"/> Leachate	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other(specify):		
Type(s) of Waste to be Accepted at this Site (select all that apply)							
<input checked="" type="checkbox"/> Municipal Waste	<input type="checkbox"/> Hazardous Waste	<input type="checkbox"/> Liquid Industrial Waste	<input type="checkbox"/> Other Liquid Waste				
Municipal Waste Categories to be Accepted at this Site (select all that apply)							
<input type="checkbox"/> All Categories	<input type="checkbox"/> Domestic Sources	<input type="checkbox"/> IC&I Sources	<input checked="" type="checkbox"/> Source Separated Organics	<input type="checkbox"/> Tires	<input checked="" type="checkbox"/> Leaf & Yard Waste		
<input type="checkbox"/> Contaminated Soil	<input type="checkbox"/> Wood Waste	<input type="checkbox"/> Blue Box Materials	<input type="checkbox"/> Other(specify):				
Other Liquid Waste Categories to be Accepted at this Site (select all that apply)							
<input type="checkbox"/> Processed Organics	<input type="checkbox"/> Waste from Food Processing / Preparation Operations		<input type="checkbox"/> Hauled Sewage	<input type="checkbox"/> Other(specify):			
Hazardous / Liquid Industrial Waste Types to be Accepted at this Site							
Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code

4.2 Other Approvals for Facility – Please attach a separate list if more space is required

Separate list attached? ☐ Yes ☒ No

List all other environmental approvals/permits applied for related to this project or received in relation to this project under the *Environmental Protection Act* (discharges to air, waste management, etc.) and the *Ontario Water Resources Act* (water and sewage works).

Approval Type	Approval Number (if approval issued)	Approval or Application Date (yyyy/mm/dd)	Approval Type	Approval Number (if approval issued)	Approval or Application Date (yyyy/mm/dd)
Air & Noise (EPA)					
Sewage Works (C)					

4.3 Waste Transfer and/or Processing / Composting – Complete this information if waste transfer and/or processing take place at this facility.

Liquid Waste							
Maximum Storage Capacity (m³)			Maximum Residual for Final Disposal (m³)				
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous		Liquid Industrial		Other Liquid Waste
			Daily	Annually	Daily	Annually	Daily Annually
Solid Waste							
Maximum Storage Capacity (tonnes)			Maximum Residual for Final Disposal (tonnes)				
Hazardous		Non-Hazardous	Hazardous		Non-Hazardous		
			Daily	Annually	Daily	Annually	
		17,600.00			30.00		9,360.00
Maximum Amount of Waste to be Received Daily							
Liquid (m³)			Solid (tonnes)				
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous		Non-Hazardous		
					200.00		
Design Capacity				Requires Fundamental Design Review?			
Hazardous waste or liquid industrial waste		<input type="checkbox"/> ≤ 100 tonnes per day	<input type="checkbox"/> > 100 tonnes per day		<input type="checkbox"/> Yes		<input type="checkbox"/> No
Waste other than hazardous waste and liquid industrial waste		<input type="checkbox"/> ≤ 100 tonnes per day	<input checked="" type="checkbox"/> > 100 tonnes per day		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No

4.4 Thermal Treatment Facility – Complete this information if thermal treatment takes place at this facility

You are not required to complete section 4.3.

Liquid Waste							
Maximum Storage Capacity (m^3)			Maximum Residual for Final Disposal (m^3)				
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous		Liquid Industrial		Other Liquid Waste
			Daily	Annually	Daily	Annually	Daily Annually

Solid Waste					
Maximum Storage Capacity (tonnes)		Maximum Residual for Final Disposal (tonnes)			
Hazardous	Non-Hazardous	Hazardous		Non-Hazardous	
		Daily	Annually	Daily	Annually

Maximum Amount of Waste to be Received Daily				
Liquid (m^3)			Solid (tonnes)	
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous	Non-Hazardous

Maximum Daily Feed Rate (tonnes/ m^3)			
Hazardous Waste (tonnes)	Non-Hazardous Waste (tonnes)	Liquid Industrial Waste (m^3)	Other Liquid Waste (m^3)

Design Capacity		Requires Fundamental Design Review?	
Hazardous waste or liquid industrial waste	<input type="checkbox"/> ≤ 100 tonnes per day <input type="checkbox"/> > 100 tonnes per day	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Waste other than hazardous waste and liquid industrial waste	<input type="checkbox"/> ≤ 100 tonnes per day <input type="checkbox"/> > 100 tonnes per day	<input type="checkbox"/> Yes <input type="checkbox"/> No	

4.5 Landfill Site – Complete this information if this facility operates as a landfill site

You are not required to complete section 4.3.

Maximum Landfilling Capacity (m^3)							
Hazardous Waste		Non-Hazardous Waste		Liquid Industrial Waste		Other Liquid Waste	

Maximum Amount of Waste to be Received							
Hazardous Waste (tonnes)		Non-Hazardous Waste (tonnes)		Liquid Industrial Waste (m^3)		Other Liquid Waste (m^3)	
Daily	Annually	Daily	Annually	Daily	Annually	Daily	Annually

Landfill Information		
Area to be Landfilled (hectares)	Estimated Date of Closure (y/m/d)	Control Types (select all that apply)
		<input type="checkbox"/> Leachate Collection <input type="checkbox"/> Landfill Gas Collection <input type="checkbox"/> None <input type="checkbox"/> Other (describe):

Design Capacity		Requires Fundamental Design Review or Hydrogeological Assessment?	
Hazardous waste or liquid industrial waste		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Waste referred to in item 15 Schedule 4, O. Reg. 363 (uncontaminated tree stumps, leaves, branches, concrete and rocks)		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Waste other than hazardous waste and liquid industrial waste, other than site referred to in item 15, schedule 4, O. Reg. 363			
<input type="checkbox"/> $\leq 40,000 m^3$	<input type="checkbox"/> $> 40,000 m^3 \leq 3 \text{ million } m^3$	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Section 5: Regulatory Requirements

5.1 Environmental Assessment Act (EAA) Requirements

Are the works for which this proposal is made subject to (or exempted from) the requirements of the EAA? ☐ Yes ☒ No

If "Yes," please check one of the following

☐ The works for which this application is made are exempt from the requirements of the EAA under:

☐ Section _____ of Ontario Regulation No. _____ or

☐ Declaration/Exemption Order Number _____

If Regulation, Declaration Order or Exemption Order does not refer directly to this facility, state in a covering letter or other document why it does apply to this facility – Please provide supporting information

☐ The works for which this application is made have fulfilled all of the requirements of the EAA through the completion of the requirements of a Class EA process:

Name of Class EA: _____

Schedule/Group/Category (if applicable): _____

If applicable, please submit a copy of the completion documents.

Were Part II Order requests received? ☐ Yes ☐ No *If Yes, please submit a copy of the Minister's decision letter.*

☐ The works for which this application is made have fulfilled all of the requirements for the EAA through:

☐ Completion of an Environmental Screening Process pursuant to O. Reg. 101/07 of the EAA.

***Please submit the Statement of Completion, and indicate if any Elevation Request(s) were received.
If Elevation Request(s) were received, please submit a copy of the Director's decision letter.***

☐ Completion of an Environmental Assessment

Please submit a copy of the signed Notice of Approval.

5.2 Hearing under the Environmental Protection Act

Is this application subject to a requirement for a mandatory hearing under s.30 of the *Environmental Protection Act*?

☐ Yes ☒ No

5.3 Environmental Bill of Rights (EBR) Requirements

Is this a proposal for a prescribed instrument under EBR?

☒ Yes ☐ No

If "Yes", is this proposal exempted from EBR requirements?

☐ Yes ☒ No

If "Yes," please check one of the following

☐ This proposal has been considered in a substantially equivalent process or by a decision of a tribunal. ***Please provide supporting information***

☐ This proposal is for an amendment to or revocation of an existing Certificate of Approval that is not environmentally significant.
Please provide supporting information

☐ This proposal is for an emergency situation. ***Please provide supporting information***

☐ This proposal has been subject to or exempted from EAA Requirements. ***Please provide supporting information***

5.4 Additional Public Consultation/Notification

Has any additional public consultation / notification related to the project is in the process of being completed or has previously been completed (such as public hearings or notification of First Nations)

☒ Yes

If "Yes",

1) describe the public consultation / notification below:

☐ No

2) attach a separate list describing each of these consultation activities, the results achieved, and planned future consultation activities.

Record of public consultation contained in Attachment 4

Section 6: Supporting Information

6.1 Supporting Information Checklist - This is a list of all supporting information to this application and is subject to the FOIPPA and EBR.

Mandatory	Attachment	Attached	Reference	Confidential* (✓)
★ Yes	Proof of Legal Name of Applicant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 2	<input type="checkbox"/>
	Copy of NEPDA Permit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
	Copy of Municipal Planning Approval (ORMCA)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
★ Yes	Reference Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 1	<input type="checkbox"/>
★	Name, Address and Phone Number of the Operating Authority	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 2	<input type="checkbox"/>
	Name, Address and consent of land/site owner for the installation/construction and operation of the works/facility	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
	Verification of EBR Public Participation Exception	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
★ Yes	Record of Public Consultation Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 4	<input type="checkbox"/>
★ Yes	Zoning Confirmation from the Municipality	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Appendix A of Attachment 3	<input type="checkbox"/>
★ Yes	Site Plan/Location Map with Geo-referencing point(s) identified	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Figures 1 and 2 of Attachment 3	<input type="checkbox"/>
★ Yes	Design and Operations Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 3	<input type="checkbox"/>
	Drainage Study	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Provided with S.53 OWRA application	<input type="checkbox"/>
	Hydrogeological Assessment Report	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
	Waste Comprehensive Requirements 1. Engineers Report 2. Declarations	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
★ Yes	Application Fee	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/>
★ Yes	Financial Assurance/ Financial Assurance Estimates	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Attachment 5	<input type="checkbox"/>
★ Yes	A copy of this application has been sent to the local district office	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/>
★ Yes	A copy of this application has been sent to the local municipality	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/>
	Record of EA Process: 1. Class EA Completion documents, or 2. Environmental Screening Process- Statement of Completion, or 3. Individual EA – Notice of Approval.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/>
Other Attachments				
	Title	Reference	Confidential* (✓)	
★	Odour Control Plan	Appendix F of Attachment 3	<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
	Are you attaching an additional list of attachments? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If there is not enough space to list all of the attachments included in this application package, please include an additional listing of these attachments.	<input type="checkbox"/>	

***Please note:** the release of information contained in application forms and documentation submitted in support of applications for approval is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This Act defines what may and may not be disclosed to the public, and is used to assess all requests for information contained in the documents on file with an application for approval. The information submitted with an application for approval may also be subject to the *Environmental Bill of Rights*. In those situations, the application and the associated non-confidential supporting documentation is made available for review by members of the public. The applicants should therefore identify all documents as noted above which are to be considered confidential and must provide detailed evidence in support of this claim. This evidence will be one of the factors the ministry would consider when making a decision regarding disclosure of specific documents on file.

For Office Use Only			
Reference Number	Payment Received	Date (y/m/d)	Initials
	\$		



Payment Information: Application for a Provisional Certificate of Approval for a Waste Disposal Site

Please Note:

1. If you are completing this form by hand, you must attach a copy of the form titled "Costs for EPA s.27 (Waste Management) Applications - Supplement to Application for Approval" (PIBS 4186). You do not need to attach the supplemental form if you are filling in this form electronically.
2. If you are completing this form electronically, the fees for this application have been calculated based on the information you have provided. The Ministry may require additional information during the review of your application that could impact the total fee required.
3. All fees should be paid in Canadian funds, payable to the Ontario Minister of Finance.
4. Credit card payments are accepted for payments under \$10,000 only.
5. If you are paying by certified cheque or money order, please staple your payment to this page.
6. Do not include this page in the copies of your application that are being provided to the local MOE Office or the local municipality(s).
7. The information collected in this section of the form is considered confidential and will only be used to process your application fee.

Amount Enclosed	Method of Payment		
\$ 5,000.00	<input checked="" type="checkbox"/> Certified Cheque	<input type="checkbox"/> Money Order	<input type="checkbox"/> Journal Entry
	<input type="checkbox"/> Visa	<input type="checkbox"/> MasterCard	<input type="checkbox"/> American Express

Credit Card Information (if paying by VISA, MasterCard or American Express)

Name on Card (please print)	Credit Card Number	Expiry Date (mm/yyyy)
Cardholder Signature		Date (yyyy/mm/dd)

If paying by certified cheque or money order, please attach it here.

Attachment 1

Reference Plan



NW LOT 15

NE LOT 15

NE LOT 15

SW LOT 15

SE LOT 15

LOT 15

CONCESSION

3

CONCESSION

2

ROAD ALLOWANCE BETWEEN CONCESSIONS 2 AND 3

I require this plan to be deposited under the Registry Act
February 7, 1995

PLAN 99999

SCHEDULE			
PART	LOT	CONCESSION	INSTRUMENT No
1	15	3	76730

PLAN OF SURVEY
of part of
LOT 15
CONCESSION 3
SOMEWHERE COUNTY

SCALE 1 : 5000
0 50 100 150 200 metres

1994

METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

CAUTION: THIS PLAN IS NOT A PLAN OF SUBDIVISION
WITHIN THE MEANING OF THE PLANNING ACT.

SURVEYOR'S CERTIFICATE

I certify that

- 1 This survey and plan are correct and in accordance with the Surveys Act and the Registry Act and the regulations made thereunder.
- 2 This survey was completed on the 28th day of December, 1994

PLACE STAMP
OF LICENCED
PROFESSIONAL
ENGINEER
HERE

FIGURE 2

Attachment 2

Proof of Legal Name

Attachment 3

Design and Operations Report

ACME OTHERTOWN COMPOSTING FACILITY

DESIGN AND OPERATIONS REPORT

Prepared by:
ACME Waste Inc.
123 Anywhere Street
Anytown, Ontario
N9N 1A1

November 2008

PROJECT SUMMARY

Operations

Address:	5555 Country Lane
Property Size:	27.6 hectares
Site Size:	13.8 hectares
Technology:	Open windrow and enclosed channel
Waste Stream:	Curbside collected and depot drop-off residential and small business source separated organics (SSO); leaf and yard waste (LY) from municipal collection and industrial, commercial and institutional sources
Daily Max. Intake:	200 tonnes per day
Annual Max. Intake:	15,000 tonnes per year (6,000 tonnes per year SSO; 9,000 tonnes per year LY)
Max. Storage Capacity:	Total Capacity – 17,594 tonnes Max. amount of unprocessed* SSO – 43 tonnes Max. amount of unprocessed* LY – 289 tonnes Max. amount of active compost SSO – 466 tonnes Max. amount of active compost LY – 2,500 tonnes Max. amount of clean wood and brush** – 618 tonnes Max. amount of curing compost – 8,678 tonnes Max. amount of finished compost*** – 5,000 tonnes * Received but not yet incorporated into channels or windrows. ** 6 month stockpile. *** meets criteria for unrestricted use
Days and Hours of Operation:	Monday to Friday, 6:00 am to 7:00 pm; Saturday, 6:00 am to 2:00 pm Receiving hours; Monday to Friday 8:00 am to 5:00 pm; Saturday 8:00 am to 12:00 pm 312 operating days per year

Infrastructure

Pad Size:	Total - 3.915 hectares Active Area – 1.3 hectares Curing Area – 1.2 hectares Storage areas and ancillary activities - 1.415 hectares
Building Size:	Total – 2,060 m ² Indoor Receiving Area – 280 m ² Channels – 1,200 m ² Discharge Area – 280 m ² Access Aisles – 200 m ² Storage – 100 m ²
Ancillary Structures:	Weigh Building; Administration/ Maintenance Building; Utility Building; Internal Service Roads

<u>Financial Assurance</u>	\$1,450,904
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Appendix B	Process Flow and Mass Balance Diagrams
Appendix C	ACME Waste Inc. Enclosed Channel Composting Operation Design Drawings
Appendix D	Equipment Manufacturers Specifications
Appendix E	ACME Waste Inc. Emergency Response Plan
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1.0 PREAMBLE

ACME Waste Inc. (ACME) is submitting an application under Section 27 of the Ontario *Environmental Protection Act* R.S.O. 1990 for approval to construct and operate the ACME Othertown Composting Facility (ACME OCF) to accommodate the composting of source separated organics (SSO) (food waste and non-recyclable tissue), and leaf and yard waste. This report has been prepared in support of the application for a Provisional Certificate of Approval for a Waste Disposal Site (Processing) for the undertaking.

This report describes the design and operations of the proposed ACME OCF and has been written in accordance with the Ontario Ministry of the Environment (MOE) *Guide for Applying for Approval of Waste Disposal Sites* (November 1999). Table 1 summarizes the Design and Operations Report requirements as described for composting sites in the *Guide for Applying for Approval of Waste Disposal Sites* (November 1999) and their corresponding location in this report.

TABLE 1: DESIGN AND OPERATIONS REPORT CONFORMITY SUMMARY

Requirement	Report Section
Location Map (zoning, adjacent properties, sensitive receptors, watercourses)	Figure 1; Figure 3
Site Plan (on-site structures, infrastructure, drainage systems)	Figure 4
Facility Design	Section 3.2; Appendix C
Facility Capacity	Section 3.3
Waste Sources, Types and Quantities	Section 3.1
Description of Operations	Section 4.0
Control Programs	Section 8.0
Monitoring Programs	Section 5.0
Contingency Plans	Section 9.0
Emergency Response Plans	Section 9.7; Appendix E

2.0 SITE DESCRIPTION

2.1 Location

The ACME OCF will be located at 5555 Country Lane within the municipal boundaries of the Municipality of Othertown. Figure 1 shows the proposed location (the Site) of the ACME OCF. The Site is on the north side of Country Lane, 10 kilometers east of the intersection with Highway 2. The legal description for the Site is the southeast corner of Lot 15, Concession 3, Municipality of Othertown, Somewhere County (see Figure 2). The 27.6 hectare Site is currently owned by ACME and will be operated by ACME staff. The proposed footprint of the ACME OCF is approximately 13.8 hectares and will be concentrated to the southern extent of the Site.

2.2 Zoning Designations and Adjacent Land Uses

Zoning designations for the Site and the surrounding area are presented in Figure 3. In August 2007, the zoning designation for the Site was amended from General Agricultural to Disposal Industrial. The zoning adoption report as approved by the Municipality of Othertown is included in Appendix A.

New development around the Site is partially restricted by the existing zoning designations. Land to the north, east and west of the Site is zoned Restricted Agricultural. This zoning precludes new structures and buildings except for structures accessory to existing buildings and structures (i.e., a garage for an existing house). Lands to the south of the Site are zoned General Agricultural.

The nearest private residences are located west of the Site along Country Lane, the closest of which is 500m from the Site's western property boundary, as shown in Figure 1. No proposed developments are known for the adjacent properties or for properties within a 2 km radius of the Site.

2.3 Site Setting

The Site is dominated by pasture. The east and west property lines are both bordered by natural treelines, which provide a visual and functional separation from the adjacent agricultural activity. A topographic high dominates the northern extent of the Site.

2.3.1 Physical Setting and Geology

The Site is located on a drumlinized till plain. Soils at the Site consist of semi-impervious silty sand till deposited by glacial action. The silty sand till is bouldery in nature, with randomly occurring sand or clay seams. Soil over the Site varies in thickness over bedrock from 3.4 m to

greater than 36 m. The underlying bedrock consists of Paleozoic limestone of the Verulam Formation.

2.3.2 Drainage and Hydrogeology

A wetland is located approximately 500 metres north of the Site (see Figure 1). The wetland is a discharge zone for the local groundwater system. Surface water drainage in the wetland area is to the west. The Site is in the Clear River drainage basin. Clear Lake is located approximately 15 km south west of the southern limit of the Site, in the Municipality of Othertown (see Figure 1).

The pathways of groundwater flow in the overburden at the Site are: i) towards the wetland from the topographically high area on the north part of the Site; and, ii) southward from the drumlin towards Clear Lake. Groundwater flow in the bedrock reflects that of the overburden groundwater system, moving towards and discharging in Clear Lake.

The ACME facility has been designed to prevent contact surface water runoff from discharging into surface waters or infiltrating groundwater, as is discussed in Section 3.2.3. As the risk to surface water or groundwater from activities undertaken at this facility is low, further hydrological and hydrogeological studies have not been undertaken.

2.4 Local Wind Patterns

Site specific wind speed and direction data obtained from the Othertown Airport, the nearest meteorological monitoring station to the ACME OCF, shows that from January 1 through December 31, 2007 the prevailing wind direction was from the west. During this period data showed that:

- 22.5% of the west winds are in the range of 1 to 5 average kilometres per hour (kph);
- 52.3% of the west winds are in the range of 6 to 15 average kph;
- 24.6% of the west winds are in the range of 16 to 35 average kph; and
- <6.5% of the winds are from the east.

3.0 FACILITY DESIGN AND LAYOUT

This section of the report discusses the technology to be used, design, and layout of the ACME OCF. It describes the projected material types, sources and quantities, and presents background information used to determine the size of the Site and the composting operations. A detailed Site plan is shown in Figure 4. A Process Flow and Mass Balance Diagram is provided in Appendix B.

3.1 Sources, Types and Estimated Quantities of Waste

The ACME OCF will support the municipalities and Industrial, Commercial and Institutional (IC&I) establishments of Somewhere County. Waste types will include SSO and leaf and yard waste, as discussed below.

3.1.1 SSO Waste

SSO waste will be received from the Somewhere County Integrated SSO Program. Currently, the Somewhere County Integrated SSO Program operates as a pilot study. Full implementation throughout Somewhere County is scheduled for August 2009. Once launched, approximately 50,200 households and 500 small businesses will receive weekly curbside collection of food and non-recyclable paper waste or will have access to five SSO depot drop-off stations located throughout Somewhere County.

Organic waste acceptable in the Somewhere County Integrated SSO Program are shown in Table 2.

TABLE 2: ACCEPTABLE SSO WASTE IN SOMEWHERE COUNTY

Organic Waste Type	Description
Food Waste	fruits and vegetables (whole/raw/cooked/peelings); tea bags, coffee grinds and filters; meat, fish, shellfish and poultry (raw/cooked/bones), bread, toast, cereals, oatmeal and other grain products; nuts; salad & salad dressing; rice; pasta; chips, popcorn, chocolate and other snack food; peanut butter, gravy and condiments
Baking Wastes	spoiled baked goods; flour and other dry ingredients; spices; raw batter; sugar
Dairy Products	yogurt; sour cream; cheese; eggs; powdered milk
Paper Fibres	moulded pulp paper egg cartons and beverage trays; paper towels; tissues; napkins; non-coated/waxed paper plates and cups
Other	hair; sawdust; wood shavings; dryer lint; house plants; pumpkins

Unacceptable wastes include cooked or raw grease and fats, diapers, cleaning wipes, feminine hygiene products, cat litter, pet waste, animal bedding, animal carcasses, medical waste (e.g. gauze bandages), take-out cups, cigarette butts and ashes. These wastes are currently accepted in programs offered by adjacent municipalities.

Currently, the Somewhere County Integrated SSO Program will only pick up waste in bulk or in kraft bags. Waste placed in plastic bags, including compostable and/or biodegradable bags will not be picked up. Based on discussions with the Somewhere County Waste Management Task Force, it is not anticipated that collection policies will be revised to allow the use of plastic bags for collection, biodegradable or otherwise.

The Municipality of Othertown is currently approved to operate a composting facility that will provide capacity for only 50% of Somewhere County's projected SSO waste tonnages. The proposed ACME OCF will support the Somewhere County Integrated SSO Program, providing composting capacity to meet outstanding demand. It has been designed to meet peak seasonal demands and long term projects for SSO and leaf and yard waste generation within Somewhere County.

3.1.2 Leaf and Yard Waste

The sources of leaf and yard waste will include:

- seasonal municipal collection programs within Somewhere County; and
- IC&I establishments, such as landscaping companies.

The leaf and yard waste types to be accepted includes leaves, brush, branches, hedge and tree trimmings (max. 1.5m in length), Christmas trees (decorations removed), house and garden plants and trimmings, sod, and tree stumps. Leaf and yard waste will only be accepted if dropped off in bulk form or in kraft bags. Leaf and yard waste in plastic bags, biodegradable or otherwise, will not be accepted.

Based on available waste quantity information provided by the municipalities of Somewhere County and the results of the Somewhere County Integrated SSO Program, it is estimated that the ACME OCF will capture approximately 12,000 – 15,000 tonnes/year of organic wastes, comprising of:

- 4,000 - 6,000 tonnes/year of SSO waste; and
- 8,000 - 9,000 tonne/year of leaf and yard waste.

3.2 Composting Facility Design

3.2.1 Layout

The ACME OCF will be comprised of an enclosed channel composting operation for SSO waste and an outdoor windrow composting operation for leaf and yard waste. Curing of the composted SSO waste will also occur on the outdoor pad. A 3.915 hectare asphalt pad, internal service roads, a weigh building and an administration/maintenance building will be constructed at the Site for the composting operations within a total footprint area of 13.8 hectares. The general layout of the Site is illustrated in Figure 4.

The enclosed channel composting operations building is located in the southwest corner of the Site. Appendix C contains the design drawings for the enclosed channel composting operations. As shown in Drawing 1, the building has a total floor area of 2,060 m², which consists of:

- 280 m² of SSO receiving area;
- 100 m² of storage area;
- 1,400 m² of channel composting area; and
- 280 m² SSO composting mass discharge area.

Enclosed channel composting operations will occur in six concrete channels, each measuring 1.2 m in depth, 3.7 m wide, and 60 m in length.

All building design components and equipment have been chosen with a view towards corrosion resistance. The building has been designed with stainless steel spans. Internal columns have been minimized and will be constructed of baked-on epoxy coated steel. Components of the aeration system (see Drawing 2) and water misting system (see Drawing 3) will be plastic where located in the active composting area. Sensitive equipment, such as control panels, will be located remotely.

A separate 64 m² utility building is located directly adjacent to the east side of the main composting operations building. The utility building houses the leachate recovery system and the computer control room.

Leaf and yard windrow composting operations will occur within a 1.3 hectare area of the asphalt pad in the central portion of the Site. Materials will be received and sorted within a 0.250 hectare pre-processing area located at the southern extent of the windrow composting operations. A 0.152 hectare area for storage of ungrounded tree stumps and unprocessed leaf and yard waste will be located adjacent to the receiving and pre-processing area.

A 1.2 hectare area of the asphalt pad will be designated for curing of the SSO and leaf and yard waste materials. The remaining 1.203 hectares of the asphalt pad will be allocated as follows; 0.246 hectares reserved as a work area for cured compost screening, wood chipping and stump grinding activities, 0.246 hectares for storage of finished compost awaiting transfer off site, 0.015 hectares for stockpiling of overs, 0.099 hectares for storage of wood chips, and the remaining 0.194 hectares as buffer space to accommodate movement amongst the compost pad.

The composting and curing windrows will be oriented such that they run parallel to the constructed slope of the pad. This will allow for proper drainage of the pad. Windrows will be formed to measure approximately 5 – 8 m wide, 3 m in height and 50 m in length. Spacing between the windrows will be approximately 2 m to allow movement between, and the routine turning of the piles. The orientation and spacing between the windrows may be modified from time-to-time, as required.

3.2.2 Air Handling System

The detailed design of the air handling system is presented in the supporting documentation for the *Environmental Protection Act* Section 9 Application for Approval (Air & Noise), which has also been submitted to the MOE for the proposed undertaking. The air and odour discharges are presented in detail in the *Odour Impact Assessment for the Proposed ACME Othertown Composting Facility* (Hot Air Consulting, March 2008). Following is a conceptual discussion of the air handling system.

The building will be operated under negative aeration and air will be directed to a 20 m by 8 m biofilter. The air intake system will consist of a series of rectangular louvers located mid-height along the west exterior wall of the building. The louvers will be motorized and interlocked with the overhead truck doors.

The building will be designed to maintain negative pressure under static conditions. Under normal operating conditions, there will be an average of 4 air exchanges per hour for the entire building with the SSO receiving area and SSO storage area having the highest air exchanges at 10 per hour and 6 per hour respectively. An alarm system will sound when the negative pressure in the SSO receiving area and SSO storage area drops to or below the average air exchanges.

A downdraft biofilter, with a 35 second Empty Bed Residence Time, will be installed on the east side of the building (see Appendix C, Drawing 2). The air inlet into the biofilter is a series of perforated 5 cm diameter plastic pipes laid overtop of a gravel bed. Air diffuses down through the media and out to atmosphere through the base of the biofilter.

The biofilter uses a permanent Biosorbens[®] media which is warranted for a ten year period. More specifically, the media has been chosen to meet the following specification requirements:

- porosity between 30 and 40%;
- effective surface area of approximately 100 m²/g;
- a rigid structure (compact guarantee <5% over lifetime) which ensures that the retention time remains consistent and adequate time is achieved for complete phase transfer and subsequent oxidation of odiferous compounds;
- resistance to acid or biological degradation to ensure longstanding consistent particle size distribution; and
- fortification with buffers, nutrients and other additives that attract hydrophobic compounds to address a spectrum of odour causing compounds (i.e., not limited to soluble odour causing compounds).

A misting system will spray inlet air, as necessary, to maintain a 40-60% moisture level in the media. A sprinkler system embedded in the biofilter medium provides supplementary moisture directly at the interface of the media and odiferous air. The Biosorbens[®] media has an internal micropore and channel structure which retains and wicks moisture as needed to the surficial biofilm allowing the Biosorbens[®] media to continuously re-wet itself.

At this time, pre-treatment of the inlet air for ammonia and hydrogen is not considered necessary. However, the biofilter design leaves open the possibility of the installation of a wet-scrubber system, should this be necessary.

Biofiltration operation will be monitored with embedded temperature and moisture probes in addition to tracking system back pressure.

3.2.3 Site Water Management

Surface water runoff from the Site will be collected in a stormwater management pond located at the southeast corner of the Site (see Figure 4). The asphalt pad will be sloped at 2.0% towards the stormwater management pond, allowing for proper drainage. The pond has been sized to store the entire volume of a 100 year storm event of 24 hour duration.

Due to the nature of the leaf and yard compost, it is unlikely that the surface runoff will meet the provincial water quality objectives for a surface water discharge. The pond will therefore be periodically dewatered using tanker trucks for disposal at the municipal sewage treatment plant. A dry barrel hydrant will be provided to allow suction from the pond for normal irrigation of the compost windrows and for filling tanker trucks during dewatering, as required.

Further details of the stormwater management pond are provided in the *Stormwater Management for Proposed ACME Othertown Composting Facility* design report prepared by ABC Consulting

(August, 2008), included as supporting documentation for the *Environmental Protection Act* Section 53 Approval of Industrial Sewage Works also submitted for the ACME OCF.

Leachate from the SSO composting process will be collected through a gravitational leachate collection system located in the base of the composting channels and the SSO receiving floor. Collected leachate will be stored in a 1,000 litre holding tank for reuse in the composting process or transfer to the municipal sewage treatment plant for final disposal. Leachate to be re-used in the composting process will be pumped from the holding tank via a recirculation pipeline as required. A filter will be installed at the intake of the pump line to prevent suspended solids or grit from entering the leachate recirculation pipeline system. Water levels within the holding tank will be alarm monitored to prevent overflow.

Weekly flushing of the leachate collection pipeline will be undertaken to prevent suspended solids and grit from blocking the collection system. This is accomplished via high pressurized flushing from the leachate pipeline intakes towards the leachate collection holding tank. The suspended solids within the leachate and from regular maintenance flushing will be captured in the holding tank, where settlement of the material to the bottom of the tank will occur. These solids will be extracted with any leachate removed for final disposal. Maintenance and back flushing (also via high pressurized flushing) of the recirculation pipelines (spray system) will be undertaken on a monthly basis, or sooner if required. Regular flushing of the system will dramatically reduce maintenance.

A schematic layout of the leachate collection system is provided in Appendix C, Drawing 3. Specifications for the filter system are included in Appendix D.

3.3 Composting Facility Capacity

Composting operations will occur within an enclosed channel composting building and on the asphalt pad (outdoor windrow composting operations). In order to determine infrastructure requirements, modelling was completed by Compost Science Ltd.

In general, the Site is designed for maximum annual receipts of 12,000 to 15,000 tonnes of waste material consisting of:

- up to 6,000 tonnes/year of SSO waste; and
- up to 9,000 tonnes/year of leaf and yard waste.

The maximum amount of waste received on any one day is 200 tonnes. The average amount of waste received is 40 tonnes per day. SSO waste will be received in uniform amounts throughout the year. Leaf and yard waste receipt will be seasonal with an anticipated maximum receipt of 2,500 tonnes during the month of October.

The design of the enclosed channel composting operation can accommodate 466 tonnes of composting feedstock if all channels are filled to capacity.

The asphalt pad has been sized based on the area required for receipt and pre-processing, active composting, curing (of both windrow and SSO compost) and storing of final product. Calculations to support the size of the asphalt pad are as listed below.

The size of the active compost pad required was calculated to be 10,560 m² based on the following assumptions:

- a peak intake of 2,500 tonnes of leaf and yard waste (autumn);
- generally triangular shaped windrows measuring 8 m wide, 3 m high and 50 m in length;
- a free space of 2 m between windrows and 5 m at the end of windrows for equipment manoeuvring; and
- an in-place leaf and yard waste density of 0.25 tonnes/m³.

The size of the curing pad required was calculated to be 12,410 m² based on the following assumptions:

- 6 month retention time;
- generally triangular shaped windrows measuring 16 m wide, 5 m high and 75 m in length;
- a free space of 2 m between windrows and 5 m at the end of windrows for equipment manoeuvring;
- an in-place leaf and yard waste density of 0.25 tonnes/m³ and an active composting mass reduction of 30%; and
- an in-place SSO waste density of 0.35 tonnes/m³ and an active composting mass reduction of 40%.

Brush will be processed on a weekly basis; therefore significant stockpiles of brush are not anticipated. A six month supply of wood chips will be kept on site to ensure sufficient bulking/amendment material is available to mix with incoming SSO waste. A six month supply was calculated to be 618 tonnes. Wood chips will be stored in piles approximately 5 m high, 10 m wide, spaced 2 m apart therefore 988 m² has been allocated for their storage space. Wood chips will be stored outside, east of the enclosed channel composting operations area as shown in Figure 4, and brought into the pre-processing building to blend with SSO as needed.

An additional 750 m² of storage space has been allocated for tree stump storage. Ground stumps will be stored in the wood chip pile area.

At any given time, it is anticipated that 30 tonnes of overs will require storage. A storage area of 150 m² has been allocated for overs storage as shown in Figure 4.

At this time there are no plans to blend finished compost with soil therefore no storage space has been allocated for soil stockpiles.

3.4 Equipment

The Manufacturer's Specifications for all of the equipment to be used are included in Appendix D.

3.4.1 Pre-Processing

Pre-processing will consist of size reduction for both the SSO and leaf and yard waste, with additional magnetic separation for SSO waste.

The size reduction system selected for dedicated use in the SSO processing area is a heavy duty, high volume shredding system capable of handling greater than 50 m³/hour of materials over an eight hour period. It has been designed exclusively to meet the needs of the waste industry and provides a consistent thorough mixture for quicker composting and a consistent compost output. The system is powered by a variable speed drive motor and can be truck mounted to allow for easy movement and provide flexibility in operations.

The SSO size reduction system will be fitted with a cross belt magnetic separator to remove any metal contaminants from the SSO waste stream. Following magnetic separation, a multi-speed screener equipped with a selection of variable sized screening mesh will ensure oversized feedstock is not fed into the process.

A shredder will be utilized for size reduction of leaf and yard waste feedstock upon receipt and a compost mixer will be utilized to mix leaf and yard materials prior to processing. A tub grinder will be used to size reduce stumps. The risk of contaminants in the leaf and yard waste stream is anticipated to be minimal, therefore no further pre-processing, other than size reduction, is planned for.

3.4.2 SSO Enclosed Channel Composting

A front end loader will be used for initial mixing and loading of SSO waste into the enclosed channel composting system. A specialized automated turner that straddles the channel on rails will mix and move the material through the channel system, and discharge the material at completion of the channel cycle. The turner moves from the discharge area of the channel, toward the front receiving area where the raw waste is being placed. The turner can be operated

automatically or by remote control. Limit switches on the front of the channel stop the turner when it reaches the end. At this point the elevating crane lifts the turner and moves backward along the channel to the transfer carriage and across to the next channel.

Aeration is provided via a mechanical aeration system, consisting of eight air supply blowers (see Appendix C, Drawing 2). The aeration pipes are embedded in gravel filled trenches located below the concrete floor of the channels. The composting system is positively aerated with fresh air brought in through the floor and moving upward through the compost mass. The blower fans are controlled by a timer and a temperature feedback system similar to a home thermostat. The blowers, control and electrical panels are located in a separate utility room, isolated from the general building air.

The turner is equipped with a misting system allowing moisture to be added at the time of turning (see Appendix C, Drawing 3). The system can be programmed to allow moisture to be added at specific points along the channel. This ensures that moisture is added only to composting mass where moisture levels and temperature monitoring conditions indicate a deficiency thereby preventing over saturation of compost mass by adding moisture where its not required.

The aerated floor system trenches also function as a drainage system for leachate. The trenches are sloped allowing leachate to gravity flow to a collection pipe located at right angles to the north end of the channels and finally to the 1000 L PVC leachate collection tank located in the Utility Building (see Appendix C, Drawing 3).

At the completion of the composting cycle, the composting mass is discharged from the enclosed channel composting system. A front end loader will be used to move the composting material to the outdoor curing area.

3.4.3 Leaf and Yard Waste Windrow Composting

The forming and turning of the windrows will be performed with a front end loader. The front end loader will also be used for moving the material around the Site and for loading and unloading feedstock and finished product.

The stormwater management pond will be fitted with a dry barrel hydrant to allow suction from the pond. A portable sprayer will be used for the wetting of compost mass during windrow turning and screening activities.

3.4.4 Screening

Finished compost will be screened using a dedicated screening system to remove undesirable components from the compost, and to prepare the finished product. The screening system

selected is a heavy duty, portable system equipped with a variable speed belt feeder, interchangeable drums allowing for grain size selectivity, and multi-level discharge heights.

3.5 Site Access

As indicated in Figure 4, the Site entrance will be located in the southwest corner of the Site, originating from Country Lane. The Site entrance and all internal roads will be asphalt paved to minimize dust caused by on-site traffic.

During non-operating hours, access to the Site will be restricted by a locked gate and signs will be posted detailing the owner of the Site, the Certificate of Approval number, the hours of waste receipt, and the name and telephone number of a person to contact in the event of an emergency or complaint.

3.6 Site Security

All vehicles will enter the Site through the Site entrance and will be required to register with the Weigh Scale Receiving Attendant to ensure only authorized use of the Site. Traffic within the Site will be limited to commercial service and municipal collection vehicles. Unloading areas will be designated and well marked for both the enclosed channel composting and windrow operations receiving areas. Access to other areas of the Site will be restricted to authorized officials of ACME.

Small vehicles will not be allowed access to the Site. Area residents interested in dropping off organic waste will be directed to the Municipality of Othertown Integrated Waste Management Facility or another waste disposal site or depot location, as appropriate.

The Site will be surrounded by fencing. During non-operating hours, access to the Site will be restricted by a locked gate. At this time, additional security features such as security cameras or security guards are not being considered. Should problems such as vandalism or illegal dumping arise during non-operating hours, ACME will reassess additional security needs.

4.0 FACILITY OPERATIONS

4.1 Hours of Operation

The Site will be open approximately 312 days per year with hours of operation as follows:

Monday to Friday	06:00 to 19:00 hours
Saturday	06:00 to 14:00 hours
Sunday	closed

The Site will be closed on all statutory holidays.

The receipt of organic waste will be restricted to the following hours:

Monday to Friday	08:00 to 17:00 hours
Saturday	08:00 to 12:00 hours

4.2 Operating Parameters

Composting is a controlled aerobic microbiological process that decomposes organic matter into carbon dioxide, water, minerals and stabilized organic matter. The operational criteria which the facility procedures are designed to meet are:

- a carbon-nitrogen ratio of 20:1 for the enclosed channel composting operation and 30:1 for the leaf and yard waste operation, C:N ratios are controlled through appropriate mixing of feedstocks;
- a minimum 10% oxygen content, which is controlled through targeting a compost mass porosity of 20% free air space, turning of windrows and with the aeration system in the enclosed channel composting system;
- a moisture content between 45% and 60% with an optimal target of 50%. Moisture levels which are initially set during feedstock preparation, can be controlled through turning (windrows), by addition of water from on-site sources, by increasing compost mass temperature, by boosting the percentage of bulking amendments in the compost mass or by increasing the air flow (enclosed channel);
- a particle size of between 2.5 and 5 cm achieved by shredding the waste during the pre-processing phase; and
- temperatures between 40 °C and 60 °C depending on the composting process phase.

Activities and processes associated with the operation include the receiving of waste, pre-processing (shredding, screening and mixing), formation of windrows (leaf and yard waste) or channel loading (SSO waste), active composting, curing and screening. The manner in which the composting operations will be carried out is described in the following sections.

4.3 Waste Receipt

All incoming organic wastes will pass over the weigh scale located at the Site entrance, and will undergo a preliminary visual inspection. Leaf and yard waste loads containing obvious unacceptable material will be rejected and restricted from unloading. SSO waste loads will be directed to the enclosed channel composting operations building, while acceptable leaf and yard waste loads will be directed to the windrow operations area for unloading as determined by the Weigh Scale Receiving Attendant. Mixed loads of SSO waste and leaf and yard waste will not be accepted.

4.4 SSO Enclosed Channel Composting

4.4.1 Pre-processing

Vehicles will enter the enclosed channel composting operations receiving area through two overhead doors located along the building's northern perimeter. SSO waste will not be unloaded until the overhead doors have shut. The Equipment Operator will inspect the SSO waste to ensure that it is acceptable. If the load contains small quantities of non-organic material, they will be removed and set aside for disposal.

The organic wastes received will be promptly processed on the day of receipt. In the event that wastes can not be processed, the pre-processing area will have storage capacity to hold up to three days of SSO waste.

Upon receipt, the SSO waste will be size reduced. A front end loader will be used to load the feed hopper that leads to the shredder. The shredder breaks open kraft bags and reduces the size of larger organic waste (e.g., pumpkins). The SSO waste falls onto a short conveyor and proceeds through a magnetic separator to remove metal contaminants.

Prior to processing, SSO waste will be mixed with woodchips to meet requirements for optimal composting. Generally the mixes will consist of a 3:1 ratio of SSO to woodchips, however this may vary depending on the moisture content of the SSO. The Equipment Operator will load one bucket of wood chips for every 3 buckets of SSO material.

The SSO waste will have seasonal differences. During summer, the SSO waste will tend to be wet and highly odourous. To address this, the Somewhere County collection vehicles have been fitted with a trap. The trap valve will be opened overtop of a sump that is connected to the leachate tank to allow liquid which has settled to be discharged prior to unloading the SSO waste. The SSO waste will either be immediately processed or immediately covered with a layer of wood chips or overs. In the winter, the SSO waste will tend to arrive at the facility in a frozen state. To combat this, a portable blower unit, equipped with a heater and flexible ducting, will be

used to blow pre-heated, ambient building air over the frozen SSO waste on the tipping floor and as it is being pre-processed.

4.4.2 Processing

The blended SSO will be loaded into the front end of a channel to the 1.0 metre high level mark on the channel. Once the channel is loaded to the required height, the equipment operator will commence loading the next channel.

4.4.3 Active Composting

Once loaded into the channel the SSO waste will undergo a process of turning and aeration, during which the process will be monitored to ensure that the required time/temperature requirements are met.

The turner starts its processing at the output end of the channel, moving towards and completing its cycle at the input end of the channel. With each pass, the organic material is displaced 3 metres towards the output end of the channel until the material is eventually discharged for curing. As the turner makes repeated passes down the channel over time, it gradually moves the mass of waste from the input end to the output end of the channel. The retention time in the channel is 28 days. Between day 7 and 14 of the process, or approximately one third to one half of the way through the channel, the temperature will be kept between 55 °C and 65 °C for a minimum of three days to ensure pathogen inactivation. The system is designed such that the high rate composting process is largely completed by the time that the waste is discharged from the end of the channel.

Additional aeration is provided via a mechanical aeration system. Eight air supply blowers alternately force air into the compost mass and draws air out of it. The air is circulated through the compost mass by means of a diffuser system to allow distribution of air. The fans are controlled by a timer and a temperature feedback system similar to a home thermostat. Air circulation in the compost piles provides the needed oxygen for the composting microbes and also prevents excessive heat build-up in the compost mass. Removing excess heat and water vapour cools the compost mass to maintain optimum temperatures for microbial activity. The exhaust air is then discharged through the biofilter.

The process control system measures the return and supply air temperatures, moisture levels, oxygen and carbon dioxide levels in three phases along each channel. Additional temperature probes are located at 2 m intervals at the point between one third to one half along the channel to allow for temperatures of the compost mass to be tracked more accurately to ensure that pathogen inactivation conditions are met. The compost process is continually monitored by a computer which ensures that all pre-set process parameters are met. The computer system automatically

adjusts the fan speed and the water spray nozzles to ensure that the compost process proceeds in optimal conditions.

Following completion of the active stage of composting, the resulting SSO product will be moved outdoors for curing, as discussed in Section 4.6.

4.5 Leaf and Yard Waste Windrow Composting

4.5.1 Pre-processing

Vehicles will proceed from the Weigh Building to the leaf and yard waste sorting and processing area on the asphalt pad (see Figure 4). Leaf and yard waste will be unloaded under the supervision of a Site Attendant, who will inspect the leaf and yard waste to ensure that it is acceptable. Acceptable loads will be promptly processed on the day of receipt. However, should same day processing not be possible, the pre-processing area will have storage capacity for up to three days of leaf and yard waste. Leaf and yard waste will be shredded, screened and mixed as required at the outdoor pre-processing area.

4.5.2 Processing

The windrows will be constructed on a wood chip base oriented such that they run parallel to the constructed slope of the compost pad. This will allow for proper drainage of the compost pad. Windrows will be formed to measure approximately 5 – 8 m wide, 3 m high and 50 m in length. Spacing between the windrows will be approximately 2 m to allow movement between, and the routine turning of the piles. The orientation and spacing between the windrows may be modified from time-to-time at the discretion of the Site Attendant.

The shape of the windrows can be modified as necessary, depending on moisture requirements. For example, if additional moisture is required, the top of the windrow can be of a concave shape to promote capture of precipitation. If it is desirable to shed excess rainfall, the top of the windrow can be convex. This will be monitored and adjusted as necessary during operation.

After windrow formation, a sign will be placed on the windrow to identify it. The sign will state the month, day and year that the windrow was formed (e.g., Sept 20-08).

4.5.3 Active Composting

The composting process will be managed so that it enters into a high rate or active phase. It is also the part of the composting processing used to inactivate any pathogens that may be in the incoming feedstocks. This part of the composting process is characterized by temperatures exceeding 55°C. The windrows will be maintained at 55 °C for at least fifteen days. This 15 day

period will not necessarily be consecutive, but will be cumulative. Windrows will be turned a minimum of five times during this period.

The temperature of each windrow will be measured daily in accordance with the operating schedule for the site (i.e. measurements not recorded on Sundays or statutory holidays) at a depth of at least 1 metre deep into the windrow mass, at a minimum of five (5) representative locations. The mean temperature of each windrow will be calculated and recorded. Moisture content will also be monitored by squeeze test or sampling for laboratory analysis, if required.

Once a windrow has achieved the 55°C on 15 separate days the compost mass will be relocated on the asphalt pad to the curing area and cured for up to six (6) months, as discussed in Section 4.6.

4.6 Curing

Following completion of the active stage of composting, the SSO and leaf and yard compost mass will be moved to the outdoor curing area, formed (or re-formed in the case of leaf and yard waste) into windrows, identified with a sign stating the month, day and year of formation and left to cure until the final compost meets the Province's requirements for compost quality. This curing process will be a minimum of 30 days but can take up to 6 months.

During the curing stage, the temperature of each windrow will be measured at a depth at least 1 metre deep into the windrow mass, at a minimum of 5 representative locations, on at least a weekly basis. The mean temperature of each windrow will be calculated and recorded. While the windrows are in the curing stage they will be turned on a frequency of not less than once per month. Compost that has cured for 6 months or more will be considered stable without further testing. For compost that has cured for less than 6 months, standard Solvita testing will be used on-site as an indicator of maturity. Off-site sample testing by an accredited laboratory will be used in determining final stability of the finished product. In the absence of MOE requirements, the Canadian Council of Ministry of the Environment (CCME) maturity criteria will be used.

4.7 Screening

Finished product suitable for use will be screened to eliminate oversized residues (overs). Overs will be stockpiled at the Site and inspected. Overs largely consisting of wood materials may be re-shredded and re-composted. Highly contaminated overs will be transferred to a landfill for disposal.

4.8 Ancillary Activities

Wood chips, to be used as bulking amendment, are produced from incoming clean wood waste (no painted or treated wood products). Brush will be shredded on a weekly basis using on-site equipment. Grinding of tree stumps will be contracted to a third party as required. It is anticipated that a tub grinder will be required three times per year for multiple days.

4.9 Compost Final Use

Finished product will not be removed from the Site until the curing period is complete, all processing data has been reviewed and the final product has been verified by an accredited laboratory to meet the compost quality standards as discussed in Section 5.3. The results of the analysis will dictate the final use of the finished product.

If laboratory analyses indicate that the finished product meets the MOE compost quality specifications, as stipulated in the “Interim Guidelines for the Production and Use of Aerobic Compost in Ontario, 2004” (Interim Guidelines), the material is considered a product and not a waste, and may be removed from the Site with no restriction on its use. Unrestricted compost will be offered for bulk sale to the municipalities of Somewhere County, as well as sold commercially (e.g., landscaping companies; golf courses).

5.0 QUALITY ASSURANCE

5.1 Feedstock Quality

The quality of the SSO waste will be largely dependent on the cooperation of the residents and small businesses participating in the program. To minimize the percentage of contaminants in the waste stream, Somewhere County will be implementing an education program consisting of placement of information advertisements in the Somewhere County Daily Gazette, an explanatory flyer included with utility bills to all utility users in the County and a hotline where residents or small businesses can call with questions. The initiation of the education campaign will coincide with the launch of the Somewhere County Integrated Waste Management Program, scheduled for August 2009.

Somewhere County waste collectors have been instructed to leave at curb any waste placed in the SSO waste collection bins which is not acceptable. A pre-printed explanatory note will be left for the resident/business owner to inform them as to why their waste was refused. However, as SSO waste may be contained in kraft bags, the waste collector will have limited ability to visually inspect the waste at the curb and a contamination rate of between 5% and 15% is anticipated.

The second quality screening will take place on the tipping floor of the enclosed channel building. The Equipment Operator will visually inspect all SSO waste off-loaded. Loads with unacceptably high rates of contamination will be transferred to a 20 yd³ (15.3 m³) bin. The bin will be removed for disposal at the end of each operating day.

Leaf and yard waste from sources other than Somewhere County curbside collection will only be accepted from approved haulers that have a valid Waste Systems Certificate of Approval or ICI businesses that have entered into a contract with ACME Waste Inc. New accounts will be informed by the Office Manager, and given an information package, as to acceptable and unacceptable waste prior to receipt of the first load of waste at the ACME OCF.

The Site Attendant will inspect each load of leaf and yard waste as it is being dumped. If any contaminated or non-organic material is encountered or suspected, the following actions are taken:

- the driver is instructed to suspend dumping immediately;
- if the prohibited material or item is recognizable and deemed to be safe to handle, it is loaded back on the delivery truck for return to customer; and
- if the nature of the waste is not known and therefore suspected to be potentially hazardous, the employee will notify the Site Supervisor.

In the event that the contaminated or non-organic material is not identified at the time of dumping and the reloading of the waste is not possible, the waste will be segregated, characterized and managed in accordance with Ontario Regulation 347. Effort will be made to identify and contact the customer and/or generator to ensure that prohibited wastes will not be delivered to the facility in the future.

5.2 Cross-Contamination

Good material management practices will minimize the likelihood of cross-contamination. Cross-contamination practices designed into the operating procedures include the following:

- dedicated equipment for the processing, and turning of leaf and yard waste;
- dedicated equipment for the processing and discharge of SSO waste;
- dedicated bucket for the transfer and turning of curing materials;
- separation of high rate stage and curing windrows; and
- designated receiving area.

A decontamination program has been designed for the enclosed channel turner. The turner travels from the output end of the first channel, beginning with compost that has almost completed the 28 day cycle towards progressively newer sources of feedstock i.e. from clean (post-pathogen reduction) compost mass towards more contaminated (pre-pathogen reduction) compost mass. Prior to moving from the input end of one channel to the output end of the next channel, i.e. from a contaminated to a clean compost mass, the turner will be decontaminated by (a) allowing the blades to continue turning at the input end to dislodge any loose SSO waste feedstock and (b) cleaning the blades with pressurized steam.

The effectiveness of the cleaning procedure will be verified using test kits. Test pads on plastic strips are used to swab the surface of the equipment in accordance with kit instructions. The test pads contain a mixture of chromogenic substrates which produce an insoluble coloured precipitate when reacted upon by the enzyme produced by *Salmonella* or *Escherichia coli*. Testing will continue for the duration of the first month of commissioning the enclosed channel i.e. one complete 28 day cycle. If results indicate that the decontamination program is effective, testing will be reduced to random quarterly checks.

The front end loader and shredder in the enclosed channel receiving area will be dedicated to the receiving area. The equipment will not be used for other purposes unless it has been cleaned and decontaminated, and analysis indicates that decontamination has been effective.

5.3 Final Product Sampling and Analysis

Sampling of the final compost will be conducted to determine the quality of the final product. Samples will be comprised of a minimum of 10 grab samples collected from diverse points within the accumulated compost pile. Each grab sample will contain at least 20 litres of compost and will be taken from a point at least 1 m inside the compost pile. The sub-samples will be combined and a composite sample will be sent to an accredited laboratory for analysis.

Finished product will not be removed from the Site until the curing period is complete and until the product has been sampled and analyzed for the Interim Guideline compost quality specifications for metals, organic chemicals and non-biodegradable particulate matter, as listed in Table 3. In addition the final product must have a soil like appearance, no recognizable pieces of SSO waste, and a pleasant, earthy odour.

Where compost has been curing for less than a 6 month period, compost will be considered to have reached maturity when one of the following three maturity tests have been met:

1. the respiration rate is less than, or equal to, 400 mg of oxygen per kilogram of volatile solids per hour; or
2. the carbon dioxide evolution rate is less than, or equal to, 4 milligrams of carbon in the form of carbon dioxide per gram of organic matter per day; or
3. the temperature rise of compost above ambient temperature is less than 8°C.

In addition to the specifications listed in Table 3, the product will be analyzed for the presence of pathogenic organisms in accordance with the Test Methods for Evaluation of Compost and Composting (TMECC) protocol, as follows:

- *Escherichia coli* must be less than 1,000 MPN/g of total solids calculated on a dry weight basis; and
- *Salmonellae* must be less than 3 MPN/4g total solids.

To minimize the amount of pathogenic organism testing required, only the compost generated from the SSO waste feedstock will be tested for the above organisms. Therefore, the curing piles from the two composting processes will be kept separate until such time as the pathogen testing results are returned at which point compost from the two waste streams may be combined into joint windrows.

TABLE 3: COMPOST QUALITY STANDARDS

Parameter	Unit of Measure	Concentration
Metals		
Arsenic	mg/kg dry wt	13
Cadmium	mg/kg dry wt	3
Chromium	mg/kg dry wt	210
Cobalt	mg/kg dry wt	34
Copper	mg/kg dry wt	100
Lead	mg/kg dry wt	150
Mercury	mg/kg dry wt	0.8
Molybdenum	mg/kg dry wt	5
Nickel	mg/kg dry wt	62
Selenium	mg/kg dry wt	2
Zinc	mg/kg dry wt	500
Non-Biodegradable Particulate Matter		
Plastic	% dry wt	1.0
Other (total)	% dry wt	2.0
Organic Chemicals		
PCB	mg/kg dry wt	0.5

The results of the analysis will dictate the final use of the compost. If compost analyses indicate that the final product meets the requirements listed in Table 3, and the additional pathogen testing for SSO waste derived compost, the material is considered a product, and not a waste, and may be removed from the Site with no restriction on its use.

Compost which does not pass the aesthetic test, that is, does not have a pleasant, earthy odour or has recognizable SSO waste, will be returned to the start of the windrow composting process and incorporated with incoming feedstock.

Compost which fails pathogen testing will be returned to the start of the enclosed channel composting process and incorporated with incoming feedstock.

Compost which fails to meet the metals criteria listed in Table 3, or from which contaminants can not be successfully screened to meet the non-biodegradable foreign matter criteria, will be considered a waste and sent for disposal at a Ministry approved facility or to the landfill operated by Somewhere County which is approved to accept off-spec compost as daily cover material.

Samples submitted for analysis will be collected in duplicate. The duplicate sample will be retained in storage for a period of three years should any concerns develop regarding certain batches of compost product.

5.4 Data Review

Prior to the release of finished compost all the data collected in the composting process will be reviewed.

The data reviewed for the enclosed channel composting operation will include the following:

- date that the material was pre-processed and loaded into the channel;
- computer data of all process readings to ensure that all pre-set treatment points were met;
- date that the compost mass was removed and formed into curing windrows;
- temperature readings, date of windrow turnings and end date of curing period; and
- analytical results with respect to finished product quality, compost maturity, foreign matter, pathogens and trace elements.

The data reviewed for the open windrow composting operation will include the following:

- component make-up of the windrow;
- date and time of windrow formation;
- temperature readings, date that temperature readings were taken and date of windrow turning to ensure that pathogen inactivation requirements have been met;
- date that windrows were transferred and re-formed on curing pad;
- end date of curing period; and
- analytical results with respect to finished product quality, maturity, foreign matter and trace elements.

6.0 MAINTENANCE PROGRAM

Proper and regular maintenance of all major equipment and structures is important for the sustainable and efficient operation of the facility. Detailed preventative and corrective maintenance schedules will be developed. Where applicable, maintenance schedules will be in accordance with, or exceed, manufacturers' recommendations. The following maintenance framework provides a conceptual outline of the maintenance program:

- the biofilter has been designed in two modules, each operating independently of the other. This allows for one module to be taken off-line for maintenance without shutting down the biofilter altogether. Maintenance procedures and media changes will be performed in accordance with the requirements specified by the manufacturer. Biofilter media changes will be performed when the channels are empty (i.e., when the biofilter is not required to be operated to control potential odours). The biofilter manufacturer will be contracted to conduct testing and maintenance of the biofilter on an annual basis.
- the composting drainage channels have been designed to allow cleaning by back-flushing with clean water. The channels themselves will be emptied and visually inspected on a quarterly basis at a minimum.
- the leachate collection pipeline will be flushed weekly via a high pressurized flushing system, to prevent suspended solids and grit from blocking the system.
- backflushing of the leachate recirculation system will be undertaken on a monthly basis, or sooner, if required.
- the asphalt pad will be visually inspected each time that windrows or stockpiled materials are removed to expose the surface. The rotation of the windrows and stockpiles shall be scheduled such that over the course of a calendar year the entire asphalt pad will be visually inspected at least once and maintenance activities performed as appropriate.
- all waste management equipment (turners, shredders, forklifts etc.) will be identified and a maintenance schedule prepared in accordance with manufacturers' specifications. Spare parts will be kept in inventory at the facility for those parts which require frequent replacement or which can not be obtained within a timely period.
- instruction / methods for carrying out preventative maintenance tasks will be documented in standard operating procedures.
- a qualified third party will be contracted to assess the structural integrity of the building components on an annual basis.
- the computerized system supplier will be contracted to provide network support.

7.0 STAFF REQUIREMENTS

7.1 Staffing and Staff Training

Staff will be required to carry out a number of activities. The following presents the minimum staff that ACME OCF will employ and a brief description of their job function:

Weigh Scale Receiving Attendant

- monitor the delivery of materials;
- record receiving quantities and monitor waste receipt limits;

Equipment Operator

- monitor the delivery of materials;
- turn or move the windrows and operate equipment;
- load and unload the channels and operate equipment;
- transport product to curing and storage areas;

Site Attendant

- monitor the delivery of materials;
- turn or move the windrows and operate equipment;
- maintain the condition of the Site;
- collect wind blown materials, control dust etc.

Quality Control Technician

- measure temperatures, moisture contents and collect material samples;
- maintain monitoring records;

Office Manager

- receive, record and respond to public complaints;
- reporting, billing, customer service;

Site Supervisor

- supervise composting operations;
- receive, record and respond to public complaints.

All staff, irrespective of designated function, will be trained in health and safety procedures, contingency plan implementation and emergency procedures to be implemented in the event of spills, fires, odours, dust or other uncommon occurrence. All staff will also be required to successfully complete a composting facility operator's course.

Other training received will be relevant and appropriate to the job function of the individual employee.

7.2 Health and Safety

To address potential public and employee health and safety concerns, the following rules will be imposed:

- smoking, eating or drinking will not be permitted in the enclosed channel building or on the composting pad;
- employees will be required to hand wash prior to entering the lunch room;
- with the exception of the Office Manager, all employees will be required to wear ACME issued coveralls for the duration of their shifts;
- employees will be required to wear CSA approved safety boots, safety glasses and hard hats when in the enclosed channel building or on the outdoor pad;
- employees handling incoming materials will require protective gloves; and
- public access will not be permitted in the processing area.

In addition, the following procedures will be employed as necessary:

- loads will be visually inspected to ensure all materials received are acceptable (see Sections 4.3, 4.4.1 and 4.5.1);
- safety pylons will be employed to direct traffic as required; and
- back-up alarms and warning lights will be employed on all heavy equipment.

Employees will be encouraged to shower when changing from ACME issued coveralls to street clothes at the end of shift.

8.0 POTENTIAL NUISANCES AND CONTROL PROGRAMS

This section discusses the potential nuisances that may result from the operation of the ACME OCF, namely odours, litter, vectors and vermin, dust, noise and traffic. It further describes the control program to be put in place to (a) prevent, and (b) mitigate these nuisances. Lastly this section describes the procedure to be followed in the event of a complaint.

8.1 Odour

An *Odour Impact Assessment for the Proposed ACME Othertown Composting Facility* (Hot Air Consulting, March 2008) was prepared in support of the *Environmental Protection Act* Section 9 Application for Approval (Air & Noise), discussed in Section 3.2.2. The odour emissions considered included both the biofilter emissions as well as fugitive emissions from the outdoor leaf and yard waste receiving and composting operations and curing operations. Odour emission rates are estimated either based on the manufacturer's guarantee (biofilter) to reduce the odour content of the outlet air by 97% or source testing results obtained at similar sites in Ontario (leaf and yard waste composting and curing operations).

In summary, the odour emission rates of the emission sources were entered into an air dispersion model (AERMOD) to calculate the odour levels at the nearest sensitive receptors defined as permanent and seasonal residences, motels, hotels, nursing/retirement homes, campgrounds and commercial places. The model predicted that the maximum odour level at the most impacted sensitive receptor (residence) located to the west of the proposed facility, would exceed the MOE odour guideline of 1 OU/m³. The maximum odour level at this receptor is predicted to be 2.22 OU/m³. A frequency-of-exceedence analysis at this receptor indicated an exceedance of 0.41% of the time which is less than the acceptable frequency-of-exceedence of 0.5% of the time as proposed in the MOE Technical Bulletin: "*Methodology for Modelling Assessments of Contaminants with 10-Minute Average Standards and Guidelines*" under O. Reg. 419/05".

To minimize the potential for odour impacts as predicted by the modelling exercise, ACME has prepared an Odour Abatement Plan outlining procedures in place to reduce the generation of odours and to ensure systematic remediation of odours if they do occur. The plan addresses many factors throughout the composting process, including:

- proper feedstock preparation;
- good management practices; and
- odour monitoring.

A more detailed description of the procedures to be followed to address each of these factors is included in the following sections.

8.1.1 Proper Feedstock Preparation

It is important to ensure that the leaf and yard or SSO waste is prepared properly so that the feedstock has the proper carbon to nitrogen (C:N) ratio. Leaf and yard waste being composted in outdoor windrows should have an C:N ration of 30:1. The SSO waste being managed in the enclosed channels typically has a higher nitrogen content than leaf and yard waste, however it is important to maintain the C:N ratio for the SSO feedstock close to 20:1.

The presence of an ammonia odour is a sign that nitrogen levels are too high and in some cases, leaves or other carbon sources should be incorporated into the windrow so that a suitable C:N ratio is restored, (i.e., roughly 1 part green to 3 parts brown material).

Odours also become problematic when the compost mass becomes anaerobic. Providing sufficient wood chips or overs to achieve 20% porosity and ensuring that the compost mass is maintained at less than 60% moisture to prevent over saturation will help maintain aerobic conditions.

8.1.2 Good Management Practices

General good housekeeping practices will be maintained to prevent the generation of odours, including:

- all SSO waste is received and pre-processed inside, and primary composting takes place inside the building which is kept under negative pressure at all times. Building air is captured and treated through the biofilter prior to release to atmosphere;
- the doors to the enclosed channel building will be closed at all times other than when trucks are entering or exiting the building;
- the tipping floor of the enclosed channel building will be swept clean on a daily basis and absorbents will be used, as required, to remove any liquid pooled on the tip floor;
- SSO will be mixed and loaded into the channels on the day of receipt and no later than within 24 hours of receipt;
- loads of grass clippings will be incorporated into windrows on the day of receipt and no later than within 4 days of receipt;
- any standing water on the compost pad will be removed, and modifications made to the pad to prevent water from ponding;
- windrows will be turned based on temperature, moisture and oxygen requirements to prevent anaerobic conditions;
- the windrows will be turned only when wind direction and atmospheric pressure conditions are suitable. Windrow turning will be avoided during weather inversions,

during early morning and late evening and during east winds (i.e., when winds are blowing in the direction of sensitive receptors). Windrow handling will be minimized during humid climate conditions;

- all roads, access areas, asphalt pads and drainage ditches will be maintained in good condition. The area will be graded, ruts and potholes filled and re-compacted as needed to prevent ponding of water;
- the site will be inspected on each operating day for general housekeeping;
- a detailed inspection of the Site will be performed on a quarterly basis and the results and any mitigative actions taken to correct deficiencies recorded; and
- any material in an advanced anaerobic state, if it can not be brought back to an aerobic state, will be landfilled.

8.1.3 Odour Monitoring

Subjective on-site odour monitoring will be conducted on a continuous basis. If any on-site odours are detected, the cause of the odour will be investigated and the problem corrected. The date and time of the odour problem, the on-site activities that were happening that may have caused the odour, and the corrective action will be recorded in order to implement continual improvement management practices.

The Site Supervisor will conduct a tour of the locations of the closest receptors at least once per day to ensure that there are no off-site odour problems.

ACME Inc will install a meteorological station on site to track temperature, wind speed and direction and relative humidity. This information will be used in odour monitoring as well as in odour impact prevention.

8.2 Litter

Litter is expected to be minimal as plastic bags are prohibited in both the SSO and leaf and yard waste collection programs. Litter, such as blowing leaves or paper bags, will be monitored. If necessary, mitigative measures, such as placing snow fences around the asphalt pad, will be implemented. Loose material will be collected during the daily site inspections and disposed of in a landfill as required.

8.3 Vectors and Vermin

It is not expected that vectors or vermin will burrow into the outdoor leaf and yard windrows. However, if necessary, appropriate extermination methods will be implemented.

To minimize the attraction of vectors and vermin into the enclosed channel composting operation building, efficient pre-processing practices will ensure that SSO waste is not stored for prolonged periods of time. Strict maintenance procedures will ensure that contaminating debris and other pre-processing residues are disposed. A pest control company has been contracted to provide pest control services in the enclosed channel building.

To prevent flies or other insects from breeding in ponded water, the asphalt pad is designed to prevent ponding. Leaf and yard waste windrow turning procedures will discourage breeding of insects in the windrows.

8.4 Dust

Provided that the windrows are maintained at their appropriate moisture content, dust from them should not be an issue. If windblown dust becomes an issue, the portable sprayer will be used to wet the surface of the windrows. Alternatively the windrows can be covered with a layer of wood chips. To control dust during windrow turning, the portable sprayer will travel in tandem with the front end loader and spray a water mist over the portion of the windrow being turned. Similarly the portable sprayer will be positioned over the screener to control dust levels during screening activities. Dust from a composting facility will typically be generated from roadways and spaces between windrows. In order to minimize dust generation all roadways will be paved and will be watered down, as necessary.

8.5 Noise

Equipment will be operated such that it conforms to the Municipality of Othertown *Noise Control By-Law 84-98* and provincial noise limits. In accordance with the by-law, ACME will ensure that:

- all equipment working at the Site has been properly maintained (e.g., operating mufflers);
- heavy equipment operates (loading, unloading, or other handling of waste materials) only during the hours of operation and for up to two hours after the ACME OCF closes for the day to allow for site maintenance and housekeeping activities.

A detailed Acoustic Assessment Report has been submitted as part of the supporting documentation for the *Environmental Protection Act* Section 9 Application for Approval (Air and Noise).

8.6 Roadway Contamination

Transportation vehicles carrying SSO waste have the potential to leak unloaded moisture and residues onto municipal roads after departing the ACME OCF. It is the responsibility of each

hauling operator to ensure that their respective transportation vehicle is suitable for travel on public roads. A power wash station will be located within the enclosed channel composting operations building receiving area for use by ACME OCF customers, with all waste water flowing into the receiving area's leachate drain. If larger amounts of leachate leak from vehicles either on the roadway or at the weigh scale, the area will be hosed and the water collected using a portable shop vac and the liquid added to the leachate storage tank.

8.7 Traffic

As indicated in Figure 4, the Site entrance will be located in the southwest corner of the Site, originating from Country Lane. All traffic will approach from Highway 2, east on Country Lane to the dedicated Site entrance.

Currently the Site is located in a low traffic area. Two residents are located on Country Lane between its intersection with Highway 2 and the Site. These residents will be most impacted by increased traffic volume within the area as a result of the ACME OCF. The following measures have been taken to minimize any impacts on neighbouring residents:

- the Weigh Building has been situated a sufficient distance back from the Site entrance to accommodate a traffic queue based on peak traffic volumes;
- Site employee traffic will not coincide with truck traffic; and
- the Site will not be open to public drop-off.

The ACME OCF is designed to accept a maximum of 15,000 tonnes of waste per year. Based on operating 6 days a week, 52 weeks a year, the site will receive an average of 48 tonnes per day. This volume of material will generate an average of 15 trucks accessing the site a day to drop off waste and 10 trucks a day to remove finished compost. The Site will not add significantly to any of the local roadways nor create traffic conflict with planned land use development in the area.

In order to account for potential future development, ACME retained R.O.A.D. Engineering to undertake a Traffic Study of the area and provide recommendations on design in order to minimize the impact of the ACME OCF on local traffic (R.O.A.D. Engineering, April 2008). The results of this study have been considered and the ACME OCF has been designed so that in the long-term there will be no trucks waiting to enter the Site on municipal roads.

8.8 Complaints Response

The ACME OCF has been designed and operating procedures have been developed with the view to minimize negative impacts. However, in the event that complaints regarding the operation of the Site are received, ACME will handle the complaints as follows:

- the driver is instructed to suspend dumping immediately;
- establish a complaint log which includes information such as the following:

- weather conditions (wind strength, wind direction, temperature, precipitation);
 - contact information of the complaint;
 - details of the nature and severity of the complaint;
 - location, time, and date where the problem occurred and any other person to witness or be involved with the event;
 - time, date and name of City/County employee who received complaint;
 - any unusual events or activities that were occurring on-site that may have attributed or caused the event which resulted in the complaint; and
 - any other information pertinent to the specific complaint;
- if the prohibited material or item is record details of investigations to establish the source or cause of the complaint;
 - coordinate complaint response with MOE staff where there is an exceedance of the MOE legislation limits or a term or condition of the Certificate of Approval;
 - cooperate with the MOE on voluntary or mandatory compliance instruments and record actions taken in this regard; and
 - provide complainant with feedback about the problem and how it was rectified within seven days of the complaint. If the issue can be rectified within seven days, ACME Waste Inc. will continue to provide the complainant with weekly updates of mitigative actions being taken until such time as the issue is resolved.

An annual public consultation event will be held to advise the local residents about the facility operations and to hear any concerns that the residents may have.

9.0 CONTINGENCY AND EMERGENCY RESPONSE PLANS

Disruptions in operations at the ACME OCF are unlikely. However, in the event of unforeseen circumstances, contingency plans have been developed as discussed below.

9.1 Odour Problems

A detailed *Odour Control Plan* (ACME Waste Inc., July 2008) has been prepared separately (Appendix F). The following presents a summary of this plan.

The site will be inspected on a daily basis to ensure that odours are not a problem. Staff authorized to conduct the site inspections will be trained to assess odours at the property line. If odours are detected, the following steps will be put in place progressively until the odour is mitigated:

1. The C/N ratio of the feedstock mix will be tested to ensure that it is meeting the 20:1 target. If the C/N is less than 20:1, additional wood chips will be added to ensure adequate carbon in the feedstock mix.
2. Employees in the SSO receiving area will use a portable sprayer to dispense an approved non-toxic odour neutralizer on any loads of SSO received that are odorous.
3. The odour suppression system over the SSO tipping floor will be activated and/or dosage rate adjusted. This misting system will introduce an approved non-toxic odour neutralizer onto the tipping floor area.
4. The odorous material will be covered with wood chips or similar material to neutralize or suppress the odour.
5. The odorous material will be removed from the site and landfilled.
6. If odorous material is repeatedly received from a particular generator, material will no longer be accepted from that customer.

If an odour problem occurs that cannot be eliminated by the steps outlined above within a period of 24 hours, ACME will retain a qualified consultant to conduct an odour audit of the facility. This will involve using a fluxmeter to determine the level of odour at all stages of the process. Mitigative measures implemented will depend on the study findings.

If odours are found to be caused by ammonia or hydrogen compounds, a wet scrubber will be installed at the inlet to the biofilter. The system works on the simple scrubbing principle wherein water mixed with acid is exposed to the process airflow in a high surface area exchange environment. The scrubber systems has a 90% efficiency rating.

9.2 Feedstock Shortages

The flexibility of the ACME OCF will provide for simple adaptation in the event of feedstock shortages. The enclosed channel composting operation is able to remain active whether or not the channels are completely full. Process monitoring equipment is designed to function in a consistent manner whether the channel is one-half or completely full. The windrow composting operations are modular and can be relocated or adjusted as required.

9.3 Market Disruptions

ACME has entered into agreements with local landscaping firms and contractors who wish to purchase the bulk compost produced at the Site. Should these markets for the material be unavailable, Somewhere County has advised that they will accept the compost for use in their parks and roadside construction projects. As a last resort, ACME will pursue opportunities to move the material for use as daily cover and final cover or disposal to an approved waste disposal site.

9.4 Labour Disruptions

In the event of a labour disruption, the Site will immediately restrict all deliveries of feedstock materials. All materials should be processed prior to the end of each working day, however, enclosed channel composting operation and windrow composting operation receiving areas have both been designed each with a storage capacity of up to three days. In the event that feedstocks are awaiting processing in a designated storage area, all stockpiled materials will be sent for disposal. Management staff will operate the facility to ensure that any material that is currently in the midst of processing completes the active composting stages.

9.5 Equipment Malfunction

The enclosed channel composting operation and windrow composting operation receiving areas have both been designed each with a storage capacity of up to three days and will provide support while equipment is being repaired or replaced. In the event of a significant equipment malfunction where operations are anticipated to be ceased for a period greater than three days, deliveries of the effected feedstock will be restricted. All stockpiled materials will be sent for final disposal.

9.6 Power Failures

The ACME OCF is connected to the Municipality of Othertown hydroelectric grid. Power failures, although possible, are unlikely.

In the event of a power failure, the outdoor windrow composting operation would be unaffected.

The enclosed channel building is equipped with an emergency power generator. The back-up power supply will ensure that the biofilter and computer systems remain functional.

9.7 Fires, Spills and Other Emergencies

Dry brush or leaves at the compost pad could ignite due to cigarettes, sparks from heavy equipment or other sources of ignition, and has the potential to self-combust. To prevent fires, the following controls will be implemented:

- the area will be designated a non-smoking zone;
- piles of wood chips and brush will be kept moist, as small as possible and separated from each other by at least 3 m to reduce the potential for fires to spread;
- during dry weather, piles of wood chips and brush will be wetted;
- materials will not be stored on-site any longer than necessary; and
- heavy equipment (front-end loaders) will be equipped with appropriate fire extinguishers.

A detailed Emergency Response Fire Plan is provided in the ACME Emergency Response Plan.

Spills are unlikely at the facility due to the nature of the waste stream handled. Staff have access to and will be trained in the use of spill kits in the event that small spills occur.

In the event of an emergency incident, including personal injury, fire, spills and inclement weather, ACME will operate in accordance with the *ACME Waste Inc. Emergency Response Plan*, provided in Appendix E. The minimum information requirement contained in an ACME Emergency Response Plan includes:

- detailed response procedures;
- responsible personnel;
- required equipment;
- communication systems;
- reporting; and
- authority and public notice.

A copy of the *ACME Waste Inc. Emergency Response Plan* has been submitted to the Municipality of Othertown and the local Fire Department. Confirmation of acceptance from both parties is also provided in Appendix E.

10.0 DOCUMENTATION

10.1 Record Keeping

ACME has developed a software system that allows for the tracking of waste from the initial receipt through the composting process and final transfer from site. The software system allows for both automatic inputs (e.g. weigh scale data, enclosed channel compost mass temperature readings) and for manual input of data by operators (e.g. date of windrow turning, windrow temperature readings). Information can be presented in various report formats, e.g. by batch, by activity or by date. This versatility allows the data to be used for a range of purposes from final compost data review to trouble shooting production problems.

The software has built-in assumptions to take into account the loss of mass and volume as waste undergoes the composting process. While not exact, this allows for a fairly accurate estimate of the amount of waste, compost mass and finished compost present on site at any time.

The system has built in security protection in case of any emergency including software and hardware destruction. In addition, ACME Waste Inc. has independent data back up in an off site location.

Hard copies of records will be kept for a minimum of five years. Electronic data will be kept indefinitely. The following records will be kept:

- type and source of feedstock material;
- laboratory reports of feedstock quality;
- quantity (m³ or tonnes) received;
- date of arrival;
- temperature readings;
- activities carried out (windrow formation, windrow turning, moisture addition, combining windrows, sampling materials);
- public complaints and action taken to address complaints;
- wind direction, on-site activity and other pertinent information when odour or other complaints occur; and
- laboratory reports of the analysis of the finished product.

Records related to preventative maintenance and inspections will be retained in hard copy for a minimum five year period.

In addition to process related records, ACME Waste Inc. will maintain employee training records for a minimum of five years. Training records will include the name of the employee trained, the subject in which training was received and/or the training course title, date of training, training instructor and signature of trained employee.

10.2 Reporting

Each year, a report detailing the Site operations, as well as any problems encountered at the Site and corrective actions taken will be prepared. The report will include the following:

- sources and quantities of waste accepted;
- details of processing operations;
- control measures that were implemented;
- results of monitoring, sampling and testing;
- complaints received and actions taken in response to complaints; and
- quantities of finished compost shipped off-site or used on-site.

11.0 SITE CLOSURE PLAN

The ACME OCF is intended to operate over the long-term. In the event that the Site must cease operations and undertake decommissioning procedures, a Site Closure Plan, detailing the decommissioning actions to be undertaken and the schedule for completion will be prepared and submitted to the District Manager. In general the closure plan will:

- cease acceptance of waste;
- continue operations until all waste on site has been processed. Alternatively, unfinished compost may be transferred to another approved composting facility to complete the process;
- transfer final compost to markets;
- remove all residual waste to final disposal;
- remove all equipment from the enclosed channel building and power wash the building;
- remove and dispose of the contents of the leachate tank and clean tank;
- dismantle and remove the biofilter; and
- test the contents of the stormwater pond and manage (i.e., dispose or discharge) as appropriate.

12.0 REFERENCES

ABC Consulting, January 2008. *Hydrogeological Study: Proposed ACME Othertown Composting Facility*.

ABC Consulting, August 2008. *Stormwater Management for Proposed ACME Othertown Composting Facility*.

Hot Air Consulting, March 2008. *Odour Impact Assessment for the Proposed ACME Othertown Composting Facility*.

Ministry of the Environment, November 1999. *Guide for Applying for Approval of Waste Disposal Sites* (PIBS 4183e). Queen's Printer of Ontario.

Ministry of the Environment, November 2004. *Interim Guidelines for the Production and Use of Aerobic Compost in Ontario* (PIBS 1749e). Queen's Printer of Ontario.

R.O.A.D. Engineering, April 2008. *Traffic Study for the Proposed ACME Othertown Composting Facility: 5555 Country Lane and Highway 2 Junction, Othertown, Ontario*.

Rock Sci. Ltd., January 2008. *Geological Investigation: Proposed ACME Othertown Composting Facility*.

FIGURES

Drawing file: N:\CAD\2008\08-1112-0108\Ph 7000\Task 7004\08-1112-0108(7004)-001 FIG 2008'12 ACME Composting FIG 1.dwg Dec 17, 2008 - 11:50am



2,500 0 2,500
Scale 1 : 100,000 m

LEGEND



WETLAND



NEIGHBOURING RESIDENCE

PROJECT

ACME Othertown Composting Facility
5555 Country Lane
Othertown, Ontario

TITLE

LOCATION PLAN

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ENGINEER
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PROJECT No. 08-1112-0108			FILE No. Ph 7000 Task 7004	
DESIGN			SCALE	AS SHOWN
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CHECK	AB	Dec. 2008		
REVIEW	PR	Dec. 2008		

FIGURE 1



NW LOT 15

NE LOT 15

NE LOT 15

SW LOT 15

SE LOT 15

LOT 15

CONCESSION

3

CONCESSION

2

ROAD ALLOWANCE BETWEEN CONCESSIONS 2 AND 3

I require this plan to be deposited under the Registry Act
February 7, 1995

PLAN 99999

SCHEDULE			
PART	LOT	CONCESSION	INSTRUMENT No
1	15	3	76730

PLAN OF SURVEY
of part of
LOT 15
CONCESSION 3
SOMEWHERE COUNTY

SCALE 1 : 5000
0 50 100 150 200 metres

1994

METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

CAUTION: THIS PLAN IS NOT A PLAN OF SUBDIVISION
WITHIN THE MEANING OF THE PLANNING ACT.

SURVEYOR'S CERTIFICATE

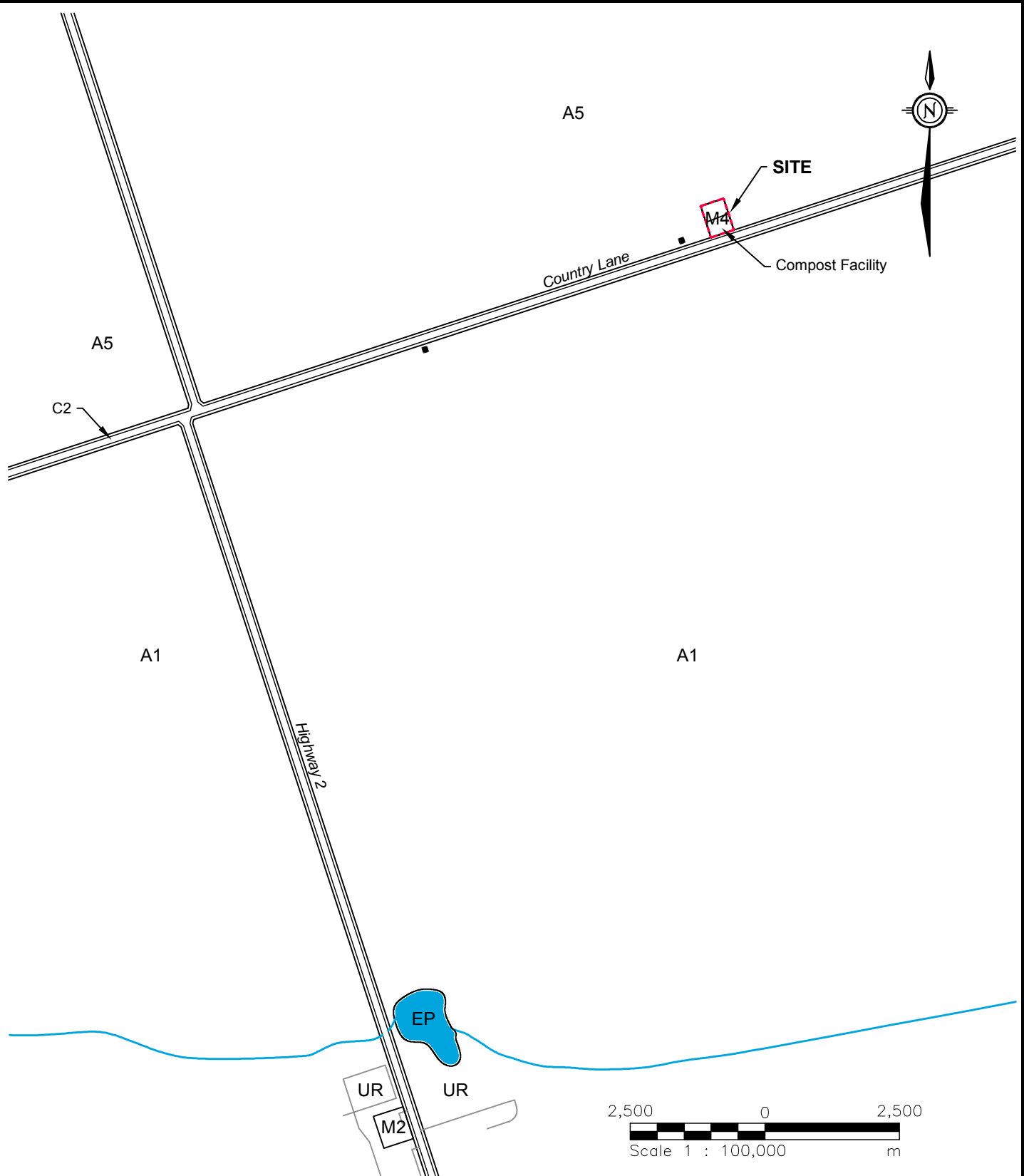
I certify that

- 1 This survey and plan are correct and in accordance with the Surveys Act and the Registry Act and the regulations made thereunder.
- 2 This survey was completed on the 28th day of December, 1994

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OF LICENCED
PROFESSIONAL
ENGINEER
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FIGURE 2

Drawing file: N:\CAD\2008\08-1112-0108\Ph 7000\Task 7004\08-1112-0108(7004)-003 FIG 2008'12 ACME Composting FIG 3 zoning.dwg Dec 17, 2008 - 11:50am



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A1	AGRICULTURAL
A5	RESTRICTED AGRICULTURAL
C2	HIGHWAY COMMERCIAL
EP	ENVIRONMENTAL PROTECTION
M2	INDUSTRIAL MIXED
M4	DISPOSAL INDUSTRIAL
UR	URBAN RESIDENTIAL

PROJECT

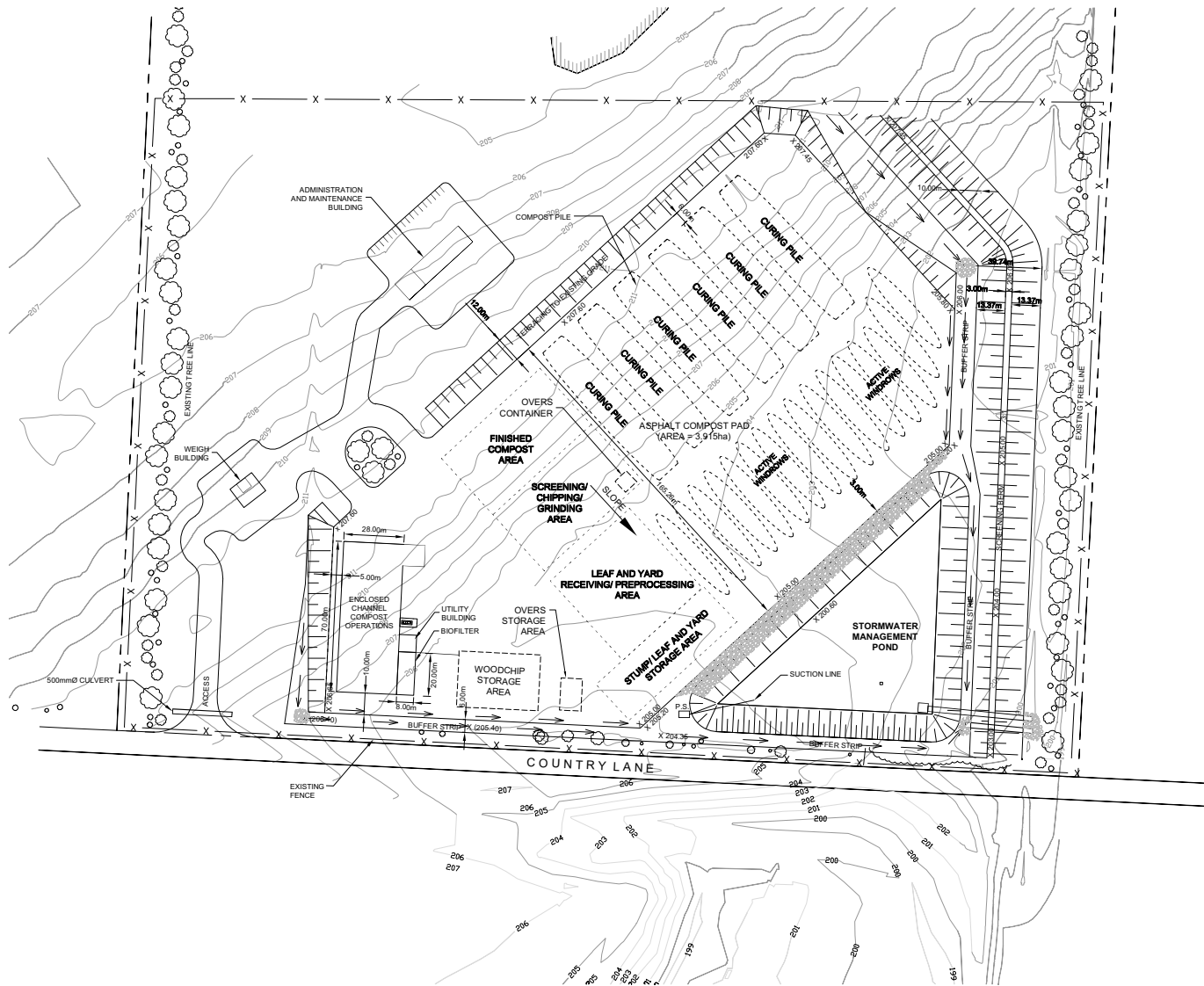
ACME Othertown Composting Facility
5555 Country Lane
Othertown, Ontario

TITLE

ZONING PLAN

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50 0 50
Scale 1 : 2,000 m



PROJECT		ACME Othertown Composting Facility 5555 Country Lane Othertown, Ontario	
TITLE		SITE PLAN	
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		DESIGN	SCALE AS SHOWN REV.
		CADD J/LJ/PH	Dec. 2008
		CHECK AB	Dec. 2008
		REVIEW PR	Dec. 2008

FIGURE 4

APPENDIX A

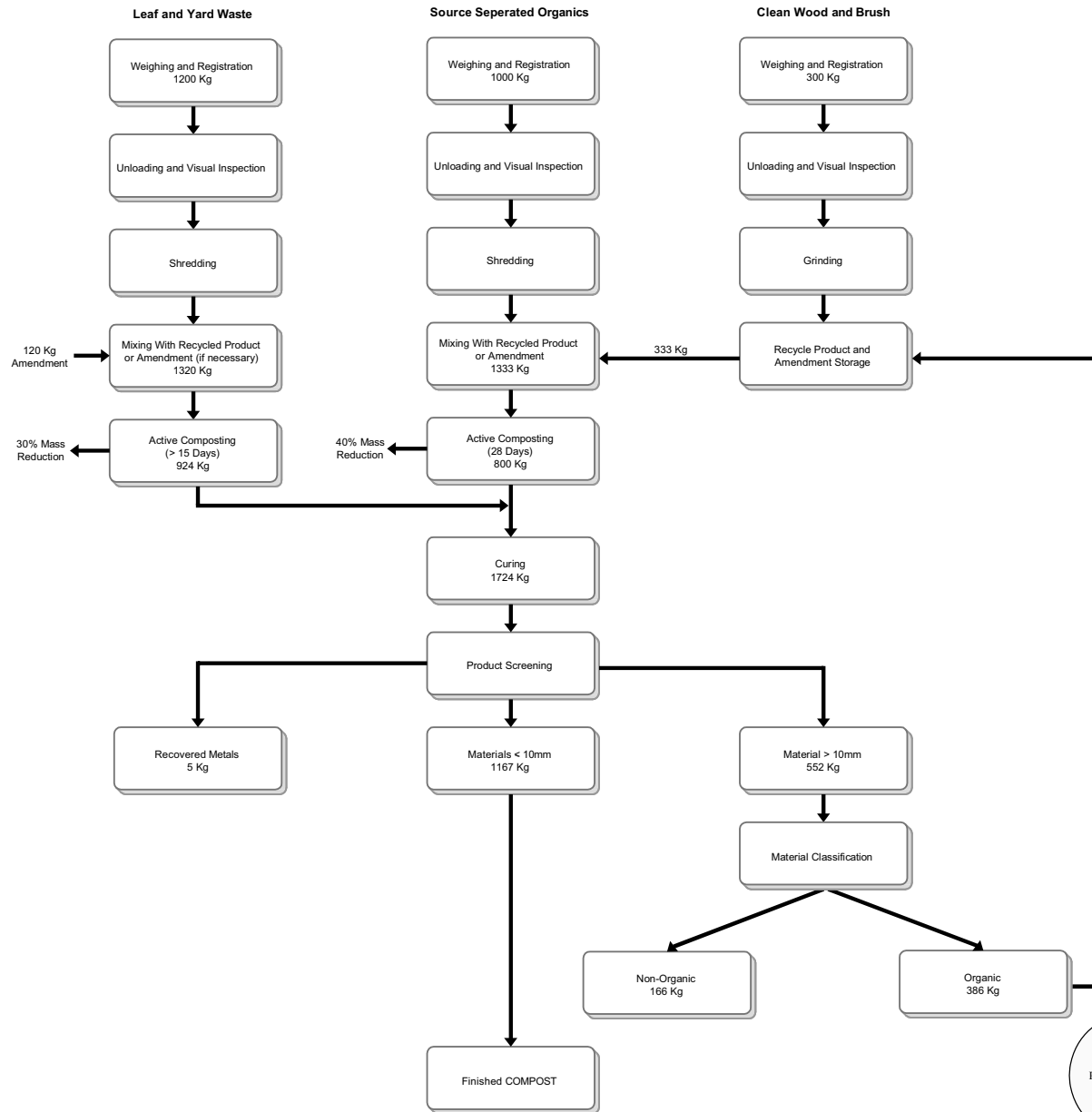
Zoning Adoption Report

Please Note:

This section has been included as a placeholder for the Zoning Adoption Report. The inclusion of a Zoning Adoption Report is not a mandatory requirement of a Part V application submission, however it is helpful in providing context. Other documentation from municipal governments, for example Council Resolutions are not mandatory requirements, but do assist in the timely review of applications if submitted.

APPENDIX B

Process Flow and Mass Balance Diagram



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PROJECT

ACME Othertown composting Facility
555 Country Lane
Othertown, Ontario

TITLE

PROCESS FLOW AND MASS BALANCE
DIAGRAM

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PROJECT No. 07-1112-0108

FILE No. Ph 7000 Task 7004

DESIGN

SCALE

REV.

CADD JT/PH Dec. 2008

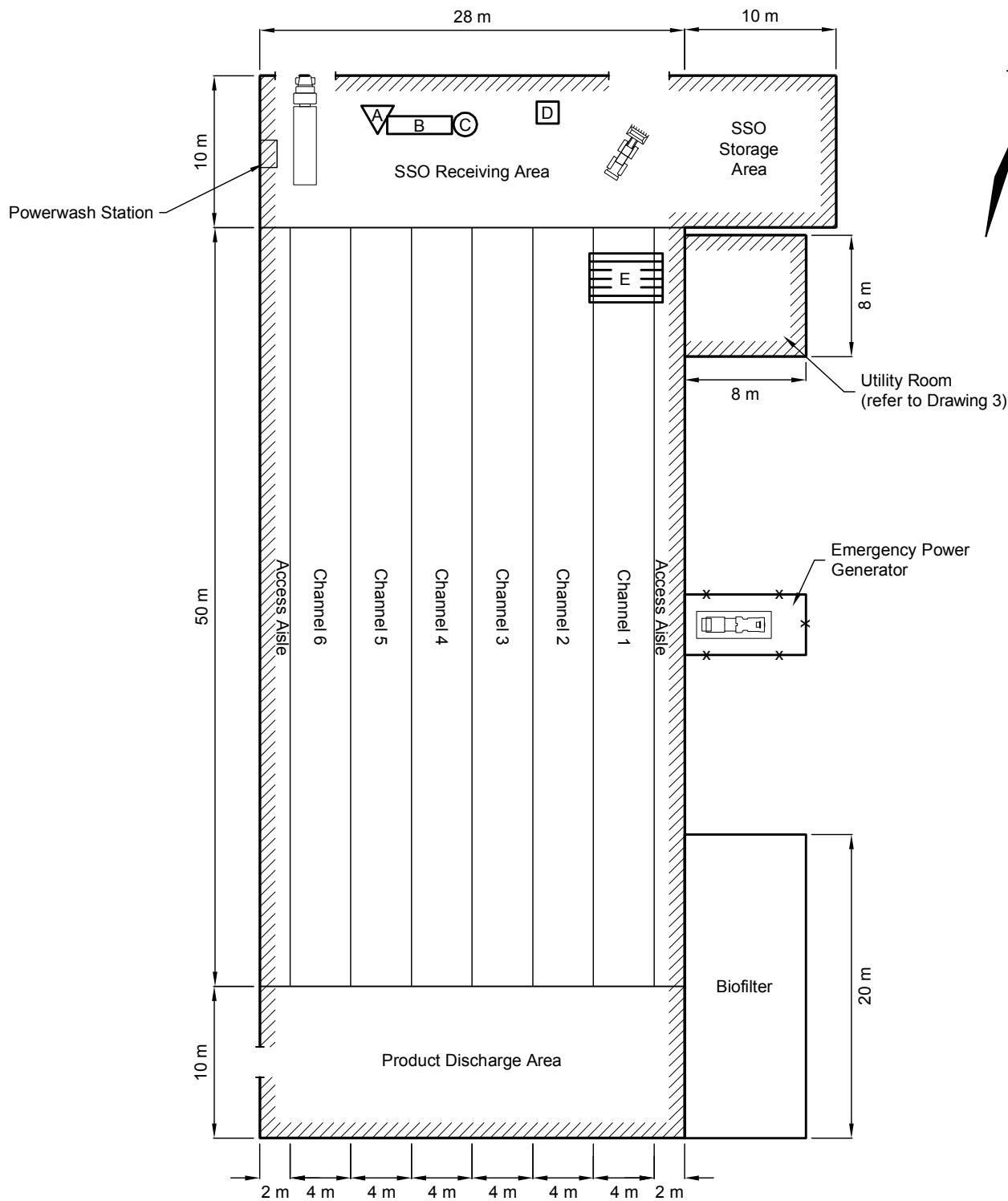
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REVIEW PR Dec. 2008






DIAGRAM 1

APPENDIX C

ACME Waste Inc. Enclosed Channel Composting Operations Design Drawings



LEGEND

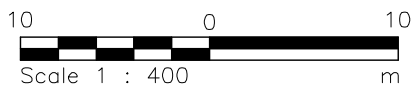
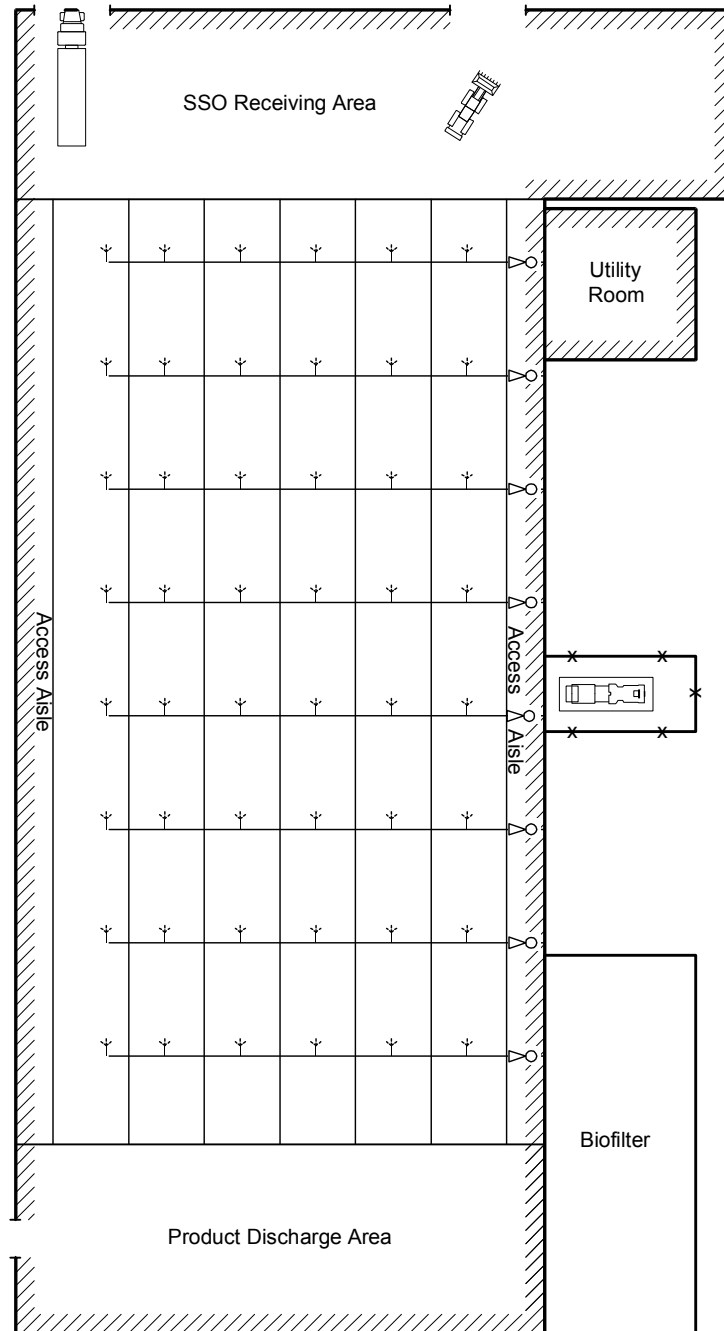
-  FEED HOPPER
-  MAGNETIC SEPARATOR
-  SHREDDER
-  OVERS CONTAINER
-  AUTOMATED TURNER

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ENGINEER
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PROJECT ACME Othertown Composting Facility
5555 Country Lane
Othertown, Ontario

TITLE ENCLOSED CHANNEL COMPOSTING OPERATIONS BUILDING LAYOUT

PROJECT No. 08-1112-0108			FILE No. Ph 7000 Task 7004		
DESIGN			SCALE	AS SHOWN	REV.
CADD	PH	Dec. 2008	DRAWING 1		
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REVIEW	PR	Dec. 2008			

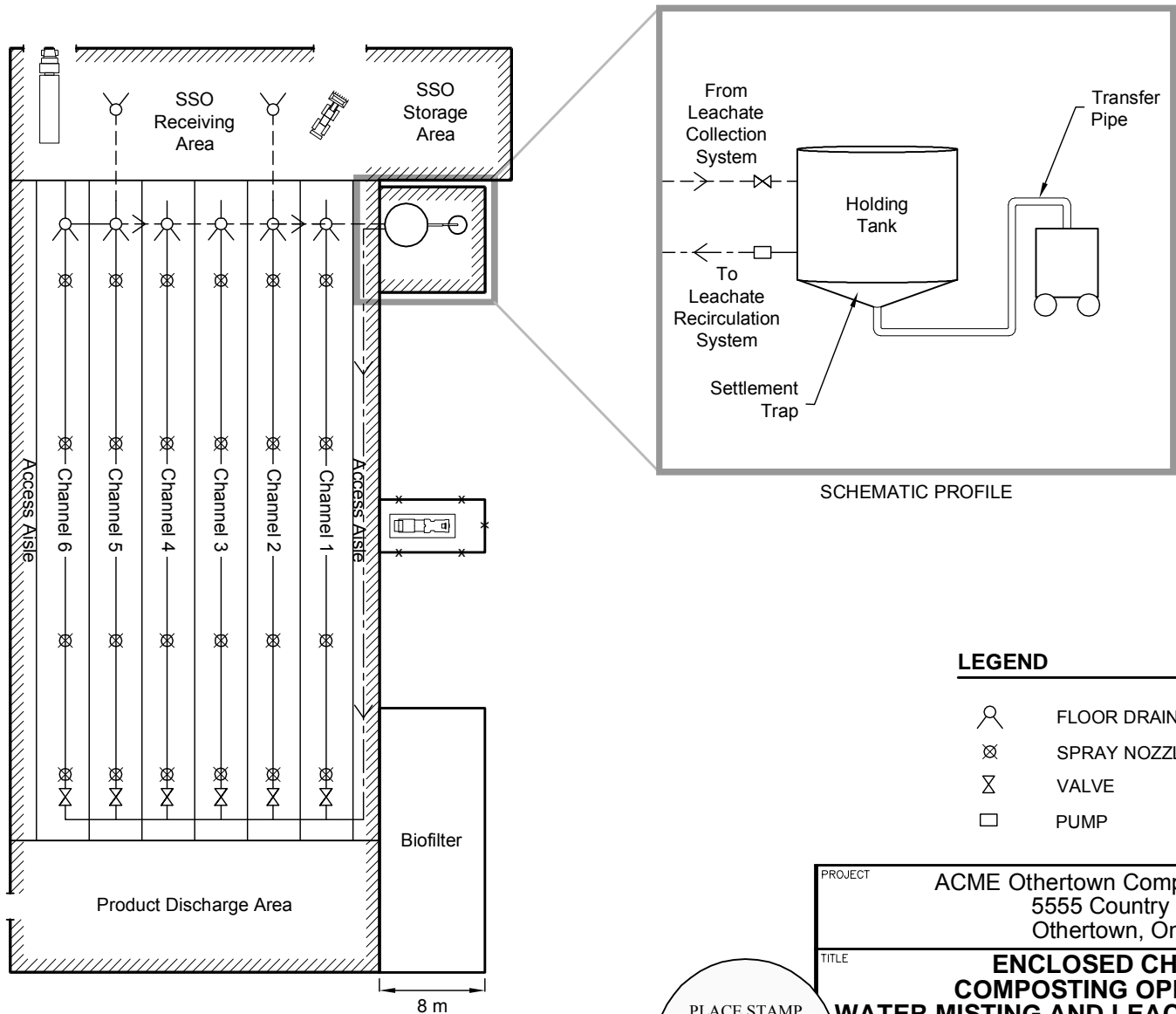


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-  BLOWER
-  AIR NOZZLE

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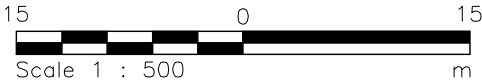
PROJECT			ACME Othertown Composting Facility 5555 Country Lane Othertown, Ontario		
TITLE			ENCLOSED CHANNEL COMPOSTING OPERATIONS AERATION SYSTEM		
PROJECT No. 08-1112-0108			FILE No. Ph 7000 Task 7004		
DESIGN			SCALE	AS SHOWN	REV.
CADD	PH	Dec. 2008	DRAWING 2		
CHECK	AB	Dec. 2008			
REVIEW	PR	Dec. 2008			



LEGEND

- FLOOR DRAIN
- SPRAY NOZZLE
- VALVE
- PUMP

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OF LICENCED
PROFESSIONAL
ENGINEER
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PROJECT	ACME Othertown Composting Facility 5555 Country Lane Othertown, Ontario			FILE No. Ph 7000 Task 7004
TITLE	ENCLOSED CHANNEL COMPOSTING OPERATIONS WATER MISTING AND LEACHATE COLLECTION SYSTEM			
DESIGN	PH/JLJM	Dec. 2008	SCALE	NTS REV.
CADD	AB	Dec. 2008	DRAWING 3	
CHECK	PR	Dec. 2008		
REVIEW				



APPENDIX D

Equipment Manufacturers Specifications

Please Note:

This section has been included as a placeholder for the Equipment Manufacturers Specifications. These specifications must be included with your application for approval.

APPENDIX E

ACME Waste Inc. Emergency Response Plan

Please Note:

This section has been included as a placeholder for the Emergency Response Plan. A complete Emergency Response Plan must be included with your application for approval.

An Emergency Response Plan should include at a minimum:

- Site plan identifying critical areas (e.g., hazardous materials) and location of emergency response equipment;
- Roles and responsibility chart;
- Contact information for internal communication / notification;
- Contact information for outside agencies (for example fire department, ambulance, spill response contractors);
- Procedures to be followed in the event of a fire, explosion, flood, severe weather event, medical emergency and other possible emergency events.



ACME WASTE INC. EMERGENCY RESPONSE PLAN



ACME OTHERTOWN COMPOSTING FACILITY

Prepared By: ACME Waste Inc.
Publication Date: 2008.08.01
Rev: Master Doc.

APPENDIX F

ACME Waste Inc. Odour Control Plan

Please Note:

This section has been included as a placeholder for the Odour Control Plan. A complete Odour Control Plan must be included with your application for approval.

An Odour Control Plan should include:

- Inventory of all potential odour sources (point source and fugitive);
- Description of odour control equipment;
- Operational practices in place to minimize odour generation;
- Odour monitoring program;
- Description of possible adverse odour impacts event;
- Procedures to be taken to address adverse odour impacts.



ACME WASTE INC. ODOUR CONTROL PLAN



ACME OTHERTOWN COMPOSTING FACILITY

Prepared By: ACME Waste Inc.
Publication Date: 2008.007.12
Rev: Master Doc.

Attachment 4
Record of Public and Government Agency
Consultation

RECORD OF PUBLIC AND GOVERNMENT AGENCY CONSULTATION

PROJECT: ACME Othertown Composting Facility, Somewhere County, Ontario

DATE: August 19th, 2008

LOCATION: Othertown Municipal Headquarters, Council Chambers

ATTENDEES: Public: 15 citizens of Somewhere County

Interest Groups: Farmers Co-Op Assoc. (Local 123) (2 members)
Othertown Horticultural Society (1 member)
Somewhere County Landscapers Assoc. (1 member)
Somewhere County Living Green Club (1 member)

Somewhere County: F. Friendly, Chair, Somewhere County
Integrated SSO Program Committee
U. Trustmee, Mayor, Othertown
S. Urban, Director of Planning, Othertown

ACME Waste Inc.: A. Goodperson, General Manager
E. Anonymous, Project Mgr, Waste Diversion Tech.

NOTIFICATION:

- A Notice by first class mail was sent to all property owners within a 1 kilometer radius of 5555 Country Lane, Othertown, Ontario, advising them of the proposed undertaking and the Consultation Event scheduled for August 19th, 2008.
- A Notice of Public Meeting was placed in the Othertown Daily Telegraph, Nowhere Town Record, Overthere Current Affairs publication and the Somewhere County Rambler on August 5th and 12th, 2008.
- Copies of all Public Notices are included in Appendix A.

FORMAT:

The Consultation Event was held from 4:00 pm to 8:00 pm. Display panels were available for review by all attendees during this period. Representatives from ACME Waste Inc., the Somewhere County Integrated SSO Program Committee and the Municipality of Othertown were available to discuss the project from 4:00 pm to 8:00 pm and at the conclusion of the event. A formal presentation was delivered from 7:00 PM – 7:45 PM, followed by an open question period.

PROCEEDINGS:

The residents in attendance questioned the route of the truck traffic accessing the facility. General Manager, Abe Goodperson advised that the trucks would access the site along Highway 2 to Country Lane. Othertown Director of Planning, Sid Urban advised that a traffic study had been completed to assess traffic volumes and

determined that the amount of truck traffic would not have a detrimental effect on the pavement condition of the local roadways. Project Manager, Eman Anonymous explained the elements that were considered during facility design to eliminate truck queues on Country Lane.

There was a discussion about the operating hours of the plant. The initial plan was to allow the facility to receive or ship waste 7 days a week. The local residents expressed concern about the site operating continuously. After considerable discussion, the following hours for receiving waste were agreed to by ACME Waste Inc. and the residents in attendance:

Monday to Friday 8:00 to 17:00 hours

Saturday 8:00 to 12:00 hours

A procedure for recording and managing any complaints that might result from the operation of the facility was discussed and agreed upon. ACME Waste Inc. also agreed to hold an annual Consultation Event to advise the local residents about the facility operations and to hear any concerns that the residents may have.

RESOURCES:

Hardcopies of the PowerPoint presentation were available to all attendees. Copies of the draft Design and Operations Plan for the ACME Othertown Composting Facility were available for those wishing to take a copy. All attendees were encouraged to complete a Comment Sheet.

The display panels and PowerPoint presentation are shown in Appendix B.

COMMENT SHEETS:

A total of twelve comment sheets were completed and left at the Consultation Event or returned by mail or fax to ACME Waste Inc. before September 2, 2008. These comment sheets are included in Appendix C.

The table below summarizes the level of support for the specific questions on the comment sheet.

	Yes	No	Uncertain
Do you support the development of the ACME Othertown Composting Facility as proposed?	40%	40%	20%
Do you have a specific concern about the operations of the proposed undertaking?	40%	60%	

The following additional comments were received:

Comment 1: I am concerned that there will be odours from the facility.

Comment 2: Waste not capable of being recycled should be treated by thermal incineration and utilized for much needed electric power.

Comment 3: I would like to see the compost made available to citizens free of charge for use in our gardens.

APPENDIX A

Public Notices

ACME Waste Inc.
123 Anywhere Street
Anytown, Ontario
N9N 1A1

August 1, 2008

ADDRESS
ADDRESS
ADDRESS

Dear Owner/Occupant:

**Notice of an Application for a Certificate of Approval for the Establishment
of a Composting Facility**

Please be advised that ACME Waste Inc. is applying to the Ontario Ministry of the Environment for a Certificate of Approval for the construction and operation of a new composting facility to manage source separated organic ("SSO") waste (food waste and non-recyclable tissue), and leaf and yard waste. The proposed facility will be located on a property that is currently owned by ACME Waste Inc., at 5555 Country Lane, Othertown, Ontario.

The ACME Othertown Composting Facility will provide support to the Somewhere County Integrated SSO Program. Furthermore the proposed facility will accept leaf and yard waste for composting from the seasonal curbside collection programs offered throughout Somewhere County and select industrial, commercial and institutional establishments, such as landscaping company operators.

The facility will be comprised of an enclosed channel composting operation for the processing of SSO waste, and an outdoor windrow composting operation for leaf and yard waste. The composting facility will have a maximum daily receiving rate of 200 tonnes per day and will accept waste for composting within the following operating hours:

Monday to Saturday 08:00 to 17:00 hours
Sunday 10:00 to 15:00 hours

A Consultation Event will be held on August 19, 2008 in the Council Chambers at the Othertown Municipal Headquarters from 4:00 pm – 8:00 pm. All interested members of the public are encouraged to attend. Representatives of ACME Waste Inc., the Somewhere County Integrated SSO Program Committee and the Municipality of Othertown will be available to discuss the project during this time.

Written comments can be sent within 30 days of receipt of this Notice to:

Mr. Ian Reviewer
Environmental Assessment and
Approvals Branch
Ministry of the Environment
2 St. Clair Avenue, Floor 12A
Toronto, Ontario M4V 1L5

Mr. Eman Anonymous
Project Manager, Waste Diversion
Technologies
ACME Waste Inc.
123 Anywhere Street
Anytown, Ontario N9N 1A1

If you have any questions regarding this notice, please do not hesitate to contact Eman Anonymous, Project Manager of Waste Diversion Technologies for ACME Waste Inc. at (905) 555-1234.

APPENDIX B

Display Boards/Presentation

Please Note:

This section has been included as a placeholder for display boards / presentations relating to this project. A copy of any display boards / presentations used during public consultation must be included with your application for approval.

APPENDIX C

Comment Sheets

Please Note:

This section has been included as a placeholder for any comment sheets received during the public consultation process. A copy of these comment sheets must be included with your application for approval.

Attachment 5

Financial Assurance Calculation

ACME Othertown Composting Facility
Application for a Provisional Certificate of Approval
Financial Assurance

TABLE OF CONTENTS

Financial Assurance Calculations

Attachment A – Quotations for Waste Loading

Attachment B – Quotations for Waste Hauling

Attachment C – Quotations for Waste Disposal

Attachment D – Quotations for Building Cleanup

Attachment E – Quotations for Equipment Cleanup

Attachment F – Quotations for Leachate Tank Cleanup

Attachment H – Quotations for Biofilter Dismantling and Medium Disposal

Attachment I – Quotations for Stormwater Pond Drainage and Disposal

FINANCIAL ASSURANCE CALCULATIONS

Financial Assurance is authorized under Part XII of the *Environmental Protection Act R.S.O. 1990* to ensure that funds are available for, but not limited to:

- the performance of environmental measures specified in approvals, orders or regulations; and
- decommissioning, clean-up, rehabilitation, monitoring and perpetual care of facilities such as private waste processing and disposal sites.

The Financial Assurance calculation for the ACME Othertown Composting Facility is included in Table 1 and is completed in accordance with the Ministry of the Environment's *Financial Assurance Guidelines, November 2005*. Three quotes have been obtained for performing each of the required services. The written quotations to complete these services are included in the attachments to this document. As allowed in Section 6.2 of the *Financial Assurance Guidelines*, the lowest cost quotation for each service has been used to determine the Financial Assurance amounts.

The Financial Assurance calculation is based upon the following scenario:

- all 7,000 tonnes of unprocessed and processed waste is sent to final disposal as waste;
- finished compost is assumed to be removed at no cost;
- the equipment and enclosed channel building were cleaned but left in place;
- the contents of the leachate tank were removed for disposal and the tank cleaned but left in place;
- the contents of the stormwater pond were removed for disposal;
- the biofilter was dismantled and the biofilter medium was sent for disposal;
- the asphalt pad, roadways and stormwater pond are left in place; and
- all work is performed by a third party.

Based on the Financial Assurance calculation for the ACME Othertown Composting Facility, ACME Waste Inc. proposes to post a Financial Assurance of \$1,450,904 as detailed in Table 1.

TABLE 1: FINANCIAL ASSURANCE CALCULATIONS

Task	Cost/tonne	Tonnes	Lump Sum	Total
Loading Costs	\$12.50	12,600		\$157,500
Hauling Costs	\$28.80	12,600		\$362,880
Disposal Costs	\$46.00	12,600		\$579,600
Building Cleanup			\$2,500	\$2,500
Equipment Cleanup			\$3,000	\$3,000
Tank Cleanup			\$4,000	\$4,000
Removal of Tanks				n/a
Biofilter Dismantling & Medium Disposal			\$5,400	\$5,400
Stormwater Pond Drainage			\$1,200	\$1,200
Subtotal				\$1,116,080
Project Management (15%)				\$167,412
Contingency (15%):				\$167,412
Total Financial Assurance				\$1,450,904

ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal

TENDER FOR CONTRACT NO. 08-100

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY John's Loading and Excavating
Name of Firm or Individual (Hereafter referred to as "The Contractor")

R.R.#1, Othertown, ON
Address

<u>John Smith</u> Name of Person Signing For Firm (Print)	<u><i>John Smith</i></u> Signature
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Owner
Office of Person Signing for Firm

<u>(905) 555 - 1212</u> Telephone #	<u>(905) 555 - 1213</u> Facsimile #
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Item # 1: Quotations for Waste Loading
Cost per tonne to load 7,000 tonnes of waste from the ACME Othertown Composting Facility into Waste Hauling Vehicles to be provided by others.

Cost per Tonne \$ 12.50

(ALL PRICES TO BE QUOTED LESS GST).

**ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal**

TENDER FOR CONTRACT NO. 08-101

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY Reliable Hauling and Disposal Inc.
Name of Firm or Individual (Hereafter referred to as "The Contractor")

430 Main St., Othertown, ON
Address

<u>Mac Jones</u> Name of Person Signing For Firm (Print)	<u>Mac Jones</u> Signature
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Director
Office of Person Signing for Firm

<u>(905) 555 -3333</u> Telephone #	<u>N/A</u> Facsimile #
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Item # 1: Quotations for Waste Hauling and Disposal

Cost per tonne to haul 7,000 tonnes of waste from the ACME Othertown Composting Facility to a licensed Waste Disposal Site (attach a copy of the Certificate of Approval for the Site)

Cost per Tonne For Hauling	<u>\$ 28.80</u>
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Cost per Tonne For Disposal	<u>\$ 46.00</u>
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(ALL PRICES TO BE QUOTED LESS GST).

**ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal**

TENDER FOR CONTRACT NO. 08-102

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY Crystal Kleen Industrial Hygiene
Name of Firm or Individual (Hereafter referred to as "The Contractor")

239 Apple Lane, Nowhere, ON
Address

<u>Jane Smith</u> Name of Person Signing For Firm (Print)	<u><i>Jane Smith</i></u> Signature
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Manager
Office of Person Signing for Firm

<u>(905) 555 - 4444</u> Telephone #	<u>(905) 555 -4441</u> Facsimile #
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<u>Item # 1:</u>	Quotations for Building Cleanup	\$ <u>2,500</u>
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(ALL PRICES TO BE QUOTED LESS GST).

**ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal**

TENDER FOR CONTRACT NO. 08-103

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY Crystal Kleen Industrial Hygiene
Name of Firm or Individual (Hereafter referred to as "The Contractor")

239 Apple Lane, Nowhere, ON
Address

<u>Jane Smith</u> Name of Person Signing For Firm (Print)	<u>Jane Smith</u> Signature
---	--------------------------------

Manager
Office of Person Signing for Firm

<u>(905) 555 - 4444</u> Telephone #	<u>(905) 555 -4441</u> Facsimile #
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<u>Item # 1:</u>	Quotations for Equipment Cleanup	\$4,500
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(ALL PRICES TO BE QUOTED LESS GST).

ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal

TENDER FOR CONTRACT NO. 08-104

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY Crystal Kleen Industrial Hygiene

Name of Firm or Individual (Hereafter referred to as "The Contractor")

239 Apple Lane, Nowhere, ON

Address

Jane Smith

Name of Person Signing
For Firm (Print)

Jane Smith
Signature

Manager

Office of Person Signing for Firm

(905) 555 - 4444

Telephone #

(905) 555 -4441

Facsimile #

Item # 1: Quotations for Leachate Tank Cleanup \$4,000

(ALL PRICES TO BE QUOTED LESS GST).

**ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal**

TENDER FOR CONTRACT NO. 08-105

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY Fresh Air Technologies

Name of Firm or Individual (Hereafter referred to as "The Contractor")

111 Green Acre Way, Green Acre Industrial Complex, Anytown, ON

Address

M.P.Smartym Ph.d.

Name of Person Signing
For Firm (Print)

MP Smartym

Signature

Technology Director

Office of Person Signing for Firm

(905) 555 - 6666

Telephone #

(905) 555 - 6661

Facsimile #

Item # 1: Quotations for Biofilter Dismantling & Medium Disposal

\$ 5,400

(ALL PRICES TO BE QUOTED LESS GST).

**ACME Waste Inc.
ACME Othertown Composting Facility
Waste Cleanup and Disposal**

TENDER FOR CONTRACT NO. 08-106

The Contractor has carefully examined the provisions, plans, specifications and conditions attached to his tender and has carefully examined the location of the work to be done under this contract, and the Contractor understands and accepts the said provisions, plans, specifications and conditions and, for the prices set forth in this tender, hereby offers to furnish all machinery, equipment, vehicles, except as otherwise specified in the contract, and to complete the work in strict accordance with the provisions, plans, specifications and conditions attached to this tender.

BY Ronia Septage Services
Name of Firm or Individual (Hereafter referred to as "The Contractor")

R.R. #3, Othertown, ON
Address

<u>Ron Donald</u> Name of Person Signing For Firm (Print)	<u>Ron Donald</u> Signature
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Owner
Office of Person Signing for Firm

<u>(905) 555 - 7777</u> Telephone #	<u>(905) 555 - 7771</u> Facsimile #
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<u>Item # 1:</u>	Quotations for Stormwater Pond Drainage	\$ <u>1,200</u>
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(ALL PRICES TO BE QUOTED LESS GST).